

REAUTHORIZATION OF THE NUCLEAR REGULATORY COMMISSION FOR FISCAL YEARS 1988 AND 1989 AND NUCLEAR EMERGENCY PLANNING

HEARINGS BEFORE THE SUBCOMMITTEE ON NUCLEAR REGULATION OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE ONE HUNDREDTH CONGRESS FIRST SESSION

MAY 6 AND 7, 1987

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REAUTHORIZATION OF THE NUCLEAR REGULATORY COMMISSION FOR FISCAL YEARS 1988 AND 1989

WEDNESDAY, MAY 6, 1987

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON NUCLEAR REGULATION,
Washington, DC.

The Subcommittee on Nuclear Regulation met, pursuant to notice, at 1:10 p.m., in room 406 Dirksen Senate Office Building, Hon. John Breaux (chairman of the subcommittee), presiding.

Present: Senators Breaux, Moynihan, Reid, and Simpson.

Senator BREAU. The committee will please come to order, only to receive an announcement. There is an objection by the minority leadership on the Senate floor to all committees being in session for the purpose of taking testimony this afternoon. That prohibits us, unless we get that changed, from having this hearing. It is not an objection to this hearing, it is an objection to all hearings.

We have a Senate vote at 1:20. Senator Simpson is coming in from out of town for this hearing. He and I will speak to the Republican leadership at the vote at 1:20 to see if we can get them to remove their objection and allow us to meet. All the NRC commissioners are here today, and if we cannot have the hearing it would mean rescheduling this panel, which I really do not want to do.

We are going to make one effort at the next vote to get the Republican leadership to remove their objections to all hearings, and under any circumstances we will be back here to report the results.

So the subcommittee will stand in recess until following the next scheduled vote on the Senate floor.

[Recess.]

OPENING STATEMENT OF HON. JOHN BREAU, U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator BREAU. The subcommittee will please come to order.

This is in the way of announcement. We are able to meet this afternoon because Senator Simpson and I received permission to hold this hearing. We just didn't want to have to cancel this hearing, because of the importance of it and the importance of the panel that we have this afternoon.

This afternoon the Subcommittee on Nuclear Regulation meets to receive testimony from the Nuclear Regulatory Commission on issues related to the authorization of funds for the agency's activities and programs during fiscal years 1988 and 1989. Oftentimes, I

suspect this task is not one that many members find challenging or interesting, especially for highly specialized, essentially regulated independent agencies.

I know from our discussions with other members, however, that this is not the case with the NRC. Because of the very nature of the industry it regulates, public and congressional scrutiny of the NRC and its programs and activities is probably much more intensive.

It is to be recalled that on February 18 of this year the full Environment and Public Works Committee conducted a budget hearing with the NRC commissioners. At that time, we received testimony indicating commission and Administration support for a fiscal year 1988 budget of \$427.8 million, an increase of \$26.8 million over the amount appropriated by the Congress last year.

We focused much of our attention in that hearing on two issues: First, the proposal of the Administration to require the NRC to recover 50 percent of its budget from user fees assessed against the nuclear powerplants that are NRC licensees; and second, a then-recently released report by the National Academy of Sciences that described the commission's research program as one "that lacks direction and a coherent and effective set of principles."

Since our last visit with the commission on budgetary matters, our full committee endorsed the recommended funding level and our views and estimates reported to the Budget Committee. The Budget Committee, in turn, accepted our recommended funding level.

Moreover, while we in this committee were unable to reach a consensus on the user fee issue, the Budget Committee has recommended in their reconciliation package that we raise the current 33 percent cap on recoverable user fees, which incidentally is now tied to the establishment of a connection between fee assessed and the regulatory service provided.

While we need to explore further with the commission the user fee issue and actions taken in response to the NAS report, I do not believe that those issues will be our primary focus today. In the intervening months, two issues have surfaced that demand our immediate attention.

One relates to the commission's decision to issue a proposed rule for public comment that would modify existing regulations concerning the level of emergency preparedness that must be shown to exist in what has been called the "hostage plant" situation. It goes without saying that this issue is a highly emotional and controversial one in many parts of the country. It involves the delicate balance of at least two equally legitimate principles. The first is the traditional and historic responsibility of State and local authorities to plan for emergencies and to protect citizens within their jurisdiction in the event of an emergency.

The second requires a recognition of previous congressional decisions to vest in the Federal Government the exclusive authority to regulate the radiological safety aspects of the construction and operation of nuclear powerplants. Today's hearing as well as tomorrow's, which will be focused solely on the emergency planning issue, will provide the members with an opportunity to fully ex-

plore the almost infinite number of nuances that flow from a collision of these two principles.

The second, and perhaps more important issue, at least to this member, relates to the integrity of the NRC itself. Upon assuming the chairmanship of this subcommittee, I found that the public and, therefore, congressional confidence in the nuclear power industry was badly damaged. Any restoration of trust that followed the investigation of the accident at Three Mile Island in 1979 had been offset by the accident at Chernobyl in the Soviet Ukraine in 1986. To be sure, an extensive educational campaign was begun by the industry and its supporters, pointing out the technological differences between the Soviet reactor and virtually every reactor licensed in the United States. But still, doubts remain. The events that have occurred since I have been in this position have not been helpful in rebuilding the trust the American people have about this technology.

No technology developed to date can overcome problems caused when the people in control of that technology fall asleep on the job or deliberately override fallback safety mechanisms designed to detect a potentially dangerous situation. This member sees a potentially huge problem with what I call the "human factor."

This does not mean to imply that I do not think that the problem can't be overcome. However, it involves much more attention to detail by utility management in the day-to-day operation of their plants. It involves much more vigorous oversight by utilities to the various quality assurance programs that have been established to ensure the continued safe operation of their plants.

And it means that the operation and management of the oversight activities of the Nuclear Regulatory Commission must be taken in a manner beyond reproach. Here, too, a potentially devastating breakdown looms on the horizon, and just the past months we have heard about the potentially "sensitive documents" being leaked from a commissioner's office to a utility attempting to acquire an operating license.

We have heard charges that high-level commission staff have improperly advised members of the regulated community how to shortcut established procedures, and we have seen some evidence to suggest that efforts have been undertaken to undermine the independence and the integrity of the investigative offices established within the commission to ferret out any wrong-doing by either employees of the commission or the regulated utilities.

These matters are serious. Some of the charges that have been leveled, if true, speak to the need for potentially undertaking either a wholesale realignment and restructuring of the commission or a personnel housecleaning or both. This member for one intends to get to the bottom of the charges. We will not tolerate a situation where we simply cannot trust the agency that we created and charged with the responsibility for overseeing the industry.

Senator Simpson is on his way over forthwith, and will be with us momentarily.

Senator Reid, do you have any opening comments before we bring the panel before us?

**OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR
FROM THE STATE OF NEVADA**

Senator REID. Thank you, Mr. Chairman. I appreciate the opportunity to participate in today's hearing to consider reauthorization of the Nuclear Regulatory Commission programs and other matters relating to the NRC.

In February, as you mentioned, the full committee held a hearing on the fiscal year 1988 budget request of the NRC. At that time, the NRC outlined its basic responsibilities and reiterated its commitment to safety in the service to the American people. Because of that, the committee approved the level of funding requested by the NRC, which was an increase over the amount appropriated in the previous year. The work of the NRC is necessary to assure the public health and safety. The approved budget request also reflects the transition in NRC's previous focus of licensing powerplants to monitoring existing ones.

As we consider in detail the reauthorization, I believe it is important that the commission provide an update on its efforts to reorganize, to reflect the shift in the agency's responsibilities.

Perhaps, Mr. Chairman, this is not the proper time frame to discuss this matter, but I am also concerned about the proposed rule change that would allow nuclear powerplants to operate without first receiving the input of State and local officials in developing and testing area evacuation plans. It appears to me that the proposed change is contrary to the stated mission of the NRC. I hope the commissioners will take a few moments to address the emergency planning issue.

Again, thank you for allowing me this opportunity to participate and voice some of my concerns. I have some questions when the time is appropriate.

Senator BREAUX. Thank you very much, Senator Reid.

I'm going to place in the record the statements of Senators Mitchell and Symms.

[The statements referred to follow:]

**OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE
OF MAINE**

Mr. Chairman, the reauthorization of the Nuclear Regulatory Commission will not be an easy task. Emergency planning and questions of the propriety of Commission activities must be addressed. I know that you will review these issues carefully before we move to markup of this legislation.

As a member of the Government Affairs Committee, I have already heard discussions regarding the flow of information from the Commission to the regulated community. Questions must be answered. In the aftermath of the Three Mile Island accident, several investigations, including one completed by this Subcommittee, analyzed the accident to determine what went wrong. The chief finding of each of these investigations was that complacency on the part of the NRC and the industry paved the way for error. It is unfortunate that this lesson, painfully learned at TMI, has been forgotten so quickly.

Nuclear powerplants are not the same as fossil-fueled plants. The use of highly radioactive fuel heightens safety concerns. Both the industry and the Commission must recognize that these concerns and the high visibility of nuclear power require extraordinary efforts to protect public health and safety.

Changes in regulations may therefore have a profound impact on the trust the public places in nuclear power. The Commission's recent proposal to modify its emergency planning regulations will be the focus of our hearing tomorrow. I will only state now that I oppose this change and believe that it sends the wrong signal

to the public. The change proposed by the Commission suggests that economics are more important than safety. The role of the Commission is to place safety first.

There is much work to do on this reauthorization. I look forward to working with you, Mr. Chairman, and other members of the Subcommittee.

OPENING STATEMENT OF HON. STEVE SYMMS, U.S. SENATOR FROM THE STATE OF IDAHO

I am very pleased to welcome Chairman Zech and the Commissioners here today.

The Idaho National Engineering Laboratory in Idaho Falls has been closely affiliated with the Nuclear Regulatory Commission since it was formed from the Atomic Energy Commission. This association has benefitted Idaho and the nation. The nuclear safety research conducted at the INEL has made major contributions to the safe operation of nuclear power plants. It has also helped reduce costs to the ratepayer and allowed more reliable power production.

The NRC has been assigned important responsibilities: making sure the public health and safety, and the environment are protected in the peaceful use of nuclear power. This seems to be a very difficult task; one that seems to grow more difficult and complicated every year. Although surveys show that most Americans, as well as the media, believe the NRC should regulate the safety of nuclear power plants, some state and local governments do not agree. So we have the serious issue of "hostage power plants" in the Northeast which cost consumers and investors millions of dollars a day.

I believe NRC's proposed emergency planning rule modification is responsible and responsive action. The law that led to the NRC's present ruling on emergency planning was not intended to give state and local governments veto power in the licensing of nuclear power plants. Unfortunately, the NRC's initial regulations required that emergency plans can and will be implemented. It was the commission's interpretation of the law that led to this situation. The change proposed by NRC will actually clarify the intent of Congress.

There is an attempt to characterize this as a states' rights issue. However, that is incorrect. Congress has clearly mandated federal regulation of radiological health and safety. State and local officials are already involved in the nuclear reactor approval process every step of the way, from site selection to design, construction, licensing, and start-up.

Under the proposed rule change, state and local governments are still expected to play an important role in the development and implementation of emergency plans. However, it will make clear that Congress did not confer on these bodies the authority to veto the Commission's decision to issue an operating license for a nuclear power plant by refusing to participate in emergency planning.

I would like to commend the Commission for the increased emphasis given nuclear research. This office in NRC has had to take some severe cuts in the past few years. As a result, the National Academy of Scientists recently issued a report that was extremely critical of NRC's research effort. It seems to me, the NRC recognized the truth of the criticism and is taking steps to correct the problem.

I have a few questions to ask on this subject:

Senator BREAUX. We have been advised that it would be a good idea, and I agree, to ask the commission members to be sworn in.

If you would, I would like for you to raise your right hand and stand, please. Do you swear that the testimony you are to give the subcommittee this afternoon is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. ZECH. I do.

Mr. ASSELSTINE. I do.

Mr. ROBERTS. I do.

Mr. CARR. I do.

Mr. BERNTHAL. I do.

Senator BREAUX. Thank you, gentlemen.

This would also pertain to any answers that we get from any written questions that we might submit to the commission members.

With that, the committee welcomes you, Mr. Chairman, and members of the commission, and we are pleased to receive your testimony.

TESTIMONY OF HON. LANDO W. ZECH, JR., CHAIRMAN, NUCLEAR REGULATORY COMMISSION

Mr. ZECH. Thank you, Mr. Chairman. Mr. Chairman, members of the subcommittee, the commission appears before you today to discuss the NRC's budget authorization, amongst other things. With me today are my fellow commissioners, the general counsel, the executive director for operations and the principal office directors.

Mr. Chairman, you have discussed briefly the actions you have taken on our fiscal year 1988 budget, so with your permission I am going to skip over that part of my short remarks. They are included more in my full remarks. I would ask with your permission that my full remarks be included in the record.

Senator BREAUX. Without objection, they will be made part of the record.

Mr. ZECH. Thank you, sir. Then I will address very briefly some of the things that you had asked us in the letter which you had written to us recently. The letter of invitation to us for this hearing included fourteen questions for which answers were requested. The responses to your questions, Mr. Chairman, are attached to our prepared statement. These cover reactor operator training, uranium imports, and a number of other important topics. With your permission today, I would like to touch briefly on three issues—user fees, standardization, and inspector-general legislation—which are of particular interest, and then talk for a few minutes about the proposed changes to the commission's emergency planning rules.

First, your letter asked for the commission's position with respect to increasing or modifying the current authority to collect user fees from NRC's licensees. The commission has already adopted a new regulation, 10 CFR Part 171, to implement section 7601 of Public 99-272. The amount collected from this fee, when added to the fees assessed under 10 CFR Part 170, equals about \$133 million, or thirty-three percent of the NRC fiscal year 1987 budget.

The commission takes no position on what percent of its budget should be recovered through fees imposed on licensees. However, the commission now believes it would be preferable to base its annual fee on the principle that those licensees who require the greatest expenditure of NRC resources should pay the greatest annual fee.

The NRC staff is now revising 10 CFR Part 171 to tie regulatory fees more closely to the costs of providing services to each individual licensee. Proposed authorization legislation has been submitted to the Congress which would amend Public Law 99-272 to more clearly reflect this approach.

Another of your questions related to standardization. The commission continues to believe that standardization is important to increase the regulatory stability and predictability of our regulatory process. We recently submitted a legislative proposal to improve the reactor licensing process. It includes provisions for early

site reviews, precicensing approval of standardized designs, and issuance of a combined construction permit and operating license.

Standardization could bring about improvements in design, construction, operation, maintenance, and training, as well as in plant performance and management. Although we believe that legislation would be highly desirable, we are developing a policy statement which will emphasize the commission's expectations that future reactor designs be standardized.

Another question asked for NRC's views on the Senate bill 908 to provide the NRC with a statutory office of Inspector General. The commission does not wish to quarrel over the basic concept of an inspector general. However, a majority of the commission believes that our nonstatutory Office of Inspector and Auditor, OIA, fulfills this internal investigation function for the NRC. As an independent regulatory agency with five commissioners who are appointed by the President and confirmed by the Senate, the NRC does not, in the opinion of the commission majority, require an inspector general as proposed in the bill. The current OIA organization structure and agency procedures provide the necessary independence that the internal audit and investigation unit requires.

S. 908 also would establish a statutory Office of Investigations, OI, which is involved in external investigations of licensees and others. The commission is concerned that the provision "neither the chairman or the commission may prevent or prohibit the director of Office of Investigations from initiating, or carrying out any investigation," could restrain the commission from exercising supervisory control over that office and therefore interfere with our ability to carry out our safety responsibilities for the protection of the public health and safety.

The commission must rely on prompt and complete investigations of wrong-doing by licensees. However, the commission must retain legitimate supervisory oversight and direction in determining which allegations have safety significance that should be pursued by OI and what priority each should have, as well as which allegations concern nonregulatory criminal violations and should be turned over to other appropriate investigative authorities.

The commission has already established OI as a commission-level office. As a result, OI already is independent of the rest of the agency's regulatory line functions, and no changes to OI are recommended.

In summary, while the commission does not wish to quarrel over the basic concept of an Inspector General, we believe that a nonstatutory OIA fills this function for the NRC.

However, we believe that S. 908, in the case of OI, could interfere with our ability to carry out our safety responsibilities, and we strongly oppose the OI provisions.

Finally, we would like to speak briefly on the subject of emergency preparedness. In discussing the commission's proposed emergency planning rule change, it would be useful to talk first about the action by the Congress that was the backdrop for our current regulations. Congress enacted emergency planning provisions in the NRC Authorization Act for fiscal year 1980. In that Act Congress made an adequate emergency plan a prerequisite for issuance of an operating license for a nuclear power plant. At the time, Congress

made clear that its first preference was for a State and local emergency plan that meets all NRC-established guidelines.

The Act provided a second option as well, however. The second preference was for operating licenses to be based on a finding that there exists a "State, local, or utility plan which provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned."

In other words, the Congress recognized that there could be adequate emergency planning that fell short of the ideal. The commission's existing regulations, patterned on the guidance set forth in the NRC Authorization Act of 1980, already permit a license to be issued notwithstanding the absence of State or local participation in emergency planning.

Principally, where our proposed rule change differs from the current regulation is that it spells out specific criteria that an applicant would have to satisfy in the event that there is a lack of State or local cooperation in emergency planning. The current regulations provide only general criteria. Nothing in the proposed criteria would alter the requirement that there be adequate, feasible emergency planning.

The proposed rule recognizes that the quality of emergency planning may vary from plant to plant. In no case, however, can it fall below the threshold of adequacy. If it turns out on examination of a utility's plan that the plan does not provide an adequate and feasible way of assuring public protection, then the license cannot be issued and will not be issued. It is as simple as that.

We emphasize that this proposed rule is just that: a proposal put before the public for comment. It is clear to us that the issue raised is one of national importance on which there are strongly held views. We believe that the commission has the obligation to face this controversial issue squarely and in the most responsible manner.

Thank you, Mr. Chairman. We appreciate this opportunity to appear before the subcommittee today, and we will answer any questions you may have.

Senator BREAU. Thank you very much, Mr. Chairman.

Do any of the other commissioners have any opening statements they would like to make?

Mr. Asselstine?

Mr. ASSELSTINE. Mr. Chairman, I have a prepared statement. You have a lot of ground to cover this afternoon, and in the interest of time I would simply ask that it be included in the record.

Senator BREAU. Thank you very much for that. Your statement will be made part of the record. (See p. 81.)

We are still awaiting Senator Simpson who I know will be here.

Let us, Mr. Chairman, get to your statement, page 8, dealing with the emergency planning provisions. You point to the second option that you say is contained in existing law: "The second preference was for operating licenses to be based on a finding that there exists a State, local, or utility"—and you underline "or utility"—"plan which provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned."

There are some who would make the point that a utility's plan cannot guarantee public safety if it does not have the active participation of the State or local Governments. It's simply not possible to have a utility devise a plan to evacuate citizens in an area if you do not have the cooperation, affirmative action assistance of the State and local Governments that cover those particular areas, that it's simply not possible to do that.

While we could make a legal argument that NRC can go with a utility plan, we also have a higher standard, and the higher standard is that whatever plan it is, it provides for health and safety. There are those who say you can't have that without State and local involvement.

How do you overcome that?

Mr. ZECH. Well, first of all, Mr. Chairman, the words you are quoting from my statement were words I quoted from the 1980 Authorization Act, section 109, which essentially appear in two paragraphs. The first paragraph before the one you quoted is what I view as the first preference. It's paragraph one, and it says there should be a State or local emergency preparedness plan which provides for responding to accidents at the facility concerned. That is A. And B, applies to the utility concerned only. The A plan complies with the commission's guidelines for such plans. Now, that is what I look as the first preference. There is no question about that. That is what the Act says. But it also gives that second paragraph, the B part, which I kind of use as a second preference, but it does say in the words of the 1980 Authorization Act that in the absence of a plan which satisfies the requirements of paragraph one, a plant may be licensed if there "exists a State, local, or utility plan"—those are the words of Congress—"which provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned."

So we took those words of the Congress in making up our NRC rule and view that interpretation that Congress has given to us as meaning that as a second preference—mind you, a second preference, certainly not the first one—there is no question that State and local participation is the way to go, and which we strongly recommend and request, and sincerely hope that we will get the continued cooperation. We have it in most all States. But Congress does give us the second preference in a case where the State and local Governments simply do not and will not cooperate in the planning process.

We recognize that the first preference is the most desirable. But since Congress has recognized a second preference, I think it is appropriate that we follow through with the rule that also recognizes that there is a second preference. But the most important point of all to recognize, I think, is that the second preference does indeed require reasonable assurance, as it says, that the public health and safety is not endangered by operation of the facility concerned. We must always meet that standard.

Now, if, in the utility plan that standard cannot be met for any reason, if we cannot assure that the public health and safety will be protected, we simply cannot approve the plan. What it really means to me, personally, is that in a review that we might have to conduct in the future, the plan simply must provide adequate

public health and safety protection. If the State and local Governments have not participated in the plan, it is much more difficult—it certainly will be for me—to approve that utility plan. But if I read the words of Congress correctly, it seems to me that there is a provision for us to be able to, not that we would, but that we could approve a utility plan if the State and local Government does not cooperate.

So it is there as a second preference. Clearly, we prefer the first preference.

Senator BREAU. I understand that. Your answer is just a recitation of the law that Congress passed. Bearing in mind that again you are correct in saying that this is not necessarily a decision that the NRC has reached, it is merely a proposed regulation that you're getting comments on, then will base your decision on whether to go forward with the rule or not.

I will ask other Commissioners to comment on this; apparently, a majority of the members of the commission have made a decision that it is potentially possible to make a finding that a plan that is designed by the utilities without any cooperation of the State or local Governments to evacuate people in an area could provide reasonable assurances that public health and safety is not endangered.

There are those who argue that that is an impossibility on its face, that there is no way that without the cooperation, assistance, and participation of State and local Governments, a plan could be submitted by a utility that would provide the standard threshold that the Congress has stated.

Is your opinion that it could be possible for such a plan to be presented?

Mr. ZECH. That's my opinion, Mr. Chairman. Also, I appreciate your emphasis on the proposed rule, which I should have emphasized, too. It is just that; it's a proposed rule. We are getting many comments. We have extended the comment period until the 4th of June, and those comments will be reviewed carefully before we make any final decision. It's a proposed rule. I think it is a responsible action on our part to air it in public and try to get what we think should be some responsible comments.

But I think a utility plan could indeed be considered as protecting the public to the extent that we could be assured that we are meeting the direction of Congress. Yes, sir; I think it could be. I am saying it would be very difficult and much more difficult without the State and local participation. But I believe it could be.

Senator BREAU. The decision to make the proposed rule and put it out for public comment was not a unanimous one. Mr. Asselstine, I think you dissented from putting the rule out for public comments.

Mr. ASSELSTINE. Yes, Mr. Chairman, I did. First, I think your question really goes to the heart of the issue. Whether you can develop a legal theory that would justify the consideration or adoption of a utility plan without State and local Government participation, the real question is can you make that kind of an arrangement work and how should that kind of an arrangement be judged, and in particular should it be judged by the same standards that the commission established in its current regulations. I think that it should.

What the Congress told the commission to do back in 1980 was, first and foremost, to develop a tough new set of standards for approving emergency plans. That was based on the recognition that what had been done prior to that time, prior to the Three Mile Island accident, was essentially all voluntary, the standards were very loose, and there just wasn't much there.

So the Congress told the commission, Develop a set of tough new standards by which to judge the adequacy of these emergency plans and include FEMA in that process as the Federal agency experts. I think that's what the commission did in its existing regulations, and those regulations establish standards for determining whether adequate offsite emergency planning measures are in place.

My own view is, if you are going to consider a utility plan, that's fine, but judge it against those standards that the commission believes are necessary to ensure that you have adequate emergency planning in place for the plan.

What the commission's proposal does is change the standards. While it may still require some reasonable assurance finding, it changes the standards by allowing the issuance of a license even if the existing standards cannot be met, as long as the substitute is there that meets the current test.

I think that goes beyond what the Congress had in mind in the 1980 act, and I don't think that it makes sense. The commission has established what is necessary to ensure adequate protective measures, and one need look no further than the April 28 comment letter from the Federal Emergency Management Agency, the Federal agency's expert on offsite emergency planning, to reach the conclusion that in those situations where you don't have any State or local Government participation, it is going to be very difficult, if not impossible, to meet the current standards.

That is what FEMA says in the letter: If this proposal is adopted, they won't be able to meet the current standards that have been agreed upon by NRC and FEMA and FEMA will not be able to reach the judgment that there are adequate offsite emergency planning measures in place that can be relied upon to work. And I think that is the crux of the issue.

Senator BREAU. Let me ask another question, and then I will recognize my two colleagues.

Mr. Bernthal, you had a comment on that point?

Mr. BERNTHAL. Yes, Mr. Chairman. If I may make just a very short comment. The Congress made a finding in a sense, that we should consider, first of all, a utility plan, and reflected in that congressional directive is certainly a broad sense that the Congress felt that a utility plan might be possible without State and local participation. So the Congress really had made that finding before the commission ever proposed this rule.

Senator BREAU. Let me interrupt you on that. You said made a finding first that we should consider a utility plan. We made a finding that first we should consider a State and local plan.

Mr. BERNTHAL. That's right.

Senator BREAU. And the second option was the utility plan. It wasn't the first option.

Mr. BERNTHAL. No, I agree. But the second option recognized the possibility that a utility plan presumably could be found adequate,

or Congress, I suppose, would never have asked the commission to consider such a thing.

I would also take issue with Commissioner Asselstine's comments that the standards have been changed. If there is anything that is repeatedly said and stated forthrightly in this proposed rule, it's that the standard of adequate protection of public health and safety remains. I don't want any misunderstanding about that point. That standard of adequacy is still there.

I would also point out that it may well be that it will just turn out to be impossible to adequately protect the public health and safety if a utility plan were offered. That is why we have licensing boards in this agency, and if there is anything that the NRC has that I believe is worth preserving, it is this concept of a scientific court where people sit down and assess the merits of the arguments, the technical arguments on one side of an issue and the other, and reach a judicious opinion on those questions. Those issues will be fought out as they always are before our licensing board, or scientific courts, if you wish, and they will be fought out on their merits, and a determination will be made on the merits if this rule should turn out to be approved by the commission.

Senator BREAU. Let me ask a final point that I want to make—I am sorry, Mr. Carr, I didn't see you indicating you wished to comment.

Mr. CARR. Yes. I would like to make one comment. We should separate the cooperation of State and local authorities in the preparation of the plan and in the carrying out of the plan. And it doesn't really make a lot of difference who prepares the plan. Whether the State and local authorities assist in the carrying out of the plan is very important. Most plans that are prepared, be they plans for evacuations or war plans or whatever, won't fit the emergency. There is going to be a certain amount of ad hoc response no matter what happens because the plan is not going to fit exactly the emergency.

But what you will miss out on, in my opinion, is if the State and local Government refuses to cooperate in the training and in the rehearsal of the plan, then you will miss out on some of the capability to carry out the evacuation. But if the plan were found to be approved as a plan, and then the State and local authorities didn't participate in practicing, then I think they would be remiss in their responsibilities.

Senator BREAU. Let me ask a relatively hypothetical question. I do not pretend to be the congressional historian on this issue, but I think that I could probably safely say that in establishing the requirement that an emergency plan be presented prior to a licensing, that it was not the intent of the majority of the Congress to establish a State veto on the licensing of nuclear powerplants. There was a requirement that we have these plans, but at least in this member's opinion it was not intended to give States a veto.

If the Congress finds itself in a situation where we are unable to develop a plan that would meet the standard of protecting the safety of an area because of any particular State's refusal to participate in developing that plan, they just say, "Look, we are not going to lift a finger. We are not going to appropriate a nickel to play in your ballpark. We feel that's the way to say no to this,"

and faced with the fact that the Congress has made previous earlier decisions that nuclear power is in the national interest, what would be the recommendation of the commission to the Congress, if any, with regard to whatever would be necessary to overcome what in effect would be a State's veto over the decision on licensing of a plant?

Mr. ZECH. Well, let me try that, Mr. Chairman, if I may. First of all, I am not an expert either on the history of what took place here in Congress in 1980. But it seems to me reading the record of what did take place, that it was at least considered by the commission at that time when they were reviewing what Congress had said and that noncooperation by the States and local Governments was really not considered very likely. Cooperation was expected, I believe, by the commission.

I don't think they focused, for example, on a State changing its mind or the State's not cooperating. It was there as a possibility because it was in the congressional words, but my view is that that was not treated as an expectation.

I think that it is important for us to recognize now that if the State and local Government, as you point out, would not participate in the plan at all, that it does make a difference. It does make our findings much harder. And as Mr. Carr points out, if they don't participate in the practice, if they don't participate in the formulation of the plan, it does indeed make a big difference.

But my experience has been with States responding to a real emergency—a flood, a fire, a disaster of some kind or another—most States do indeed have quite effective organizations for responding. And even though I think it would be much preferable for any State that has a nuclear power plant in its boundaries to participate fully, I think it is possible that that State in an emergency could and would respond in an effective manner.

What should the Congress do, Mr. Chairman? I am not sure. I really believe we have had a rather exceptionally good record of cooperation with almost all the States over a number of years. I am not sure that any legislation is necessary at this time, but perhaps it is. I would hope not. I would hope we could continue the cooperative and respectful, responsible relationship with the Federal Government, and the States that has gone on over all these years. I am not ready now, frankly, to ask you for any legislation. I think we should go forward, seeking continued cooperation, and before we are ready to ask you for that, I think we should maybe try a little harder to work with the States. That would be my approach.

Senator BREAU. Senator Simpson, please go ahead.

Senator SIMPSON. Mr. Chairman, thank you very much. I want to express my appreciation for your efforts in accommodating me at this hearing today. It is very helpful, and I thank you for that.

We have a lot of controversy surrounding the issues we will address today, and I am looking forward to working with you. I appreciate the commissioners, as I say, and you yourself adjusting your schedules.

I feel like I have been here before, emergency planning. At least as we embark on this new 2-year authorization cycle, we have passed authorizing legislation for the commission on a regular basis since the jurisdiction over this agency was assigned to the En-

vironment Committee. That is something that others cannot say, and I pledge to support you in your efforts this year as we begin consideration of this.

I can't remember a time, Mr. Chairman, interestingly enough, where we have had more things on the table, with the possible exception of TMI. We have such a lengthy and controversial slate of issues, and I am ready to dig in and help you with that, and today's hearing will be an opportunity to do that.

Let me just ask, is it opportune to ask a question or two for two or three minutes?

Senator BREAUX. Yes.

Senator SIMPSON. Thank you, Mr. Chairman. I would like to ask Jim Asselstine, and I did hear some of that response.

You know the issue so well and I know you know it because you and I worked together for so long, and you were a great help to me when I was in that capacity. It is not clear to me, though, from your response to the written questions whether you oppose the proposed rule as a matter of policy or whether you oppose it because it violates the 1980 emergency planning legislation or perhaps both? Does this proposal violate the 1980 legislation, in your view? I would like to know that.

Mr. ASSELSTINE. Yes, Senator Simpson, I think it does. And let me try to explain how I think it does. I think the 1980 act did four things. First, it told the commission we need a new set of standards for judging the adequacy of emergency plans because up until that time there really weren't any standards. It was a voluntary program, and all of us I think recognized after the Three Mile Island accident that there really needed to be an improvement in emergency planning.

So, first, I think the law said we need tough new standards for evaluating the plans and for determining whether the plans and the implementation part that Commissioner Carr was talking about really can be counted on to work in the event of a real emergency.

The second thing I think the 1980 act did was provide for a role for the Federal Emergency Management Agency. That was something that came up towards the latter stages, but the act recognized that FEMA was becoming the Federal agency, the experts on emergency planning, and they ought to have a role in this process.

The third thing the 1980 act did is clearly to allow for the consideration of not only State and local plans but also for utility plans. I think that is clear. But I think that the act contemplated that those plans, either a utility plan alone or some combination of the three, would all be judged by the same standards, those tough new standards for evaluating offsite emergency planning that I mentioned as the first item.

Finally, I think that the act included as part of its fundamental philosophy a recognition that State and local Government involvement was really central to this process. After all, the act states, and clearly the Conference Report, states that our goal is to have an adequate State and local plan in effect for every plant in the country.

Those are the four elements that I see in the 1980 act. Let me explain why I think the commission's proposed rule is inconsistent

not only on policy grounds but also inconsistent with those four directives. And the big place where I think it's inconsistent is in the standards by which emergency planning would be judged absent State and local Government involvement, because all of the existing standards that the commission developed in response to the 1980 act are geared towards the situation where you have at least State and local Government involvement.

As Commissioner Carr says, it doesn't matter so much who wrote the original plan, but this whole process depends upon State and local Government involvement. The people who are actually going to have to carry out the responsibilities need to be trained, they need to understand the plan, and they need to go through exercises to demonstrate that they know what they are doing and that they are going to be able to do their job. That is what everything is geared toward, and if you don't have State and local Government involvement, it is pretty clear that you are not going to be able to meet some of the existing standards, and FEMA has told us that.

That is why I think what the commission has had to do is grant an exception to our existing regulations to say, If you don't have State and local Government involvement, then we are going to have to approach this on an ad hoc basis, and we still think that now we can grant exemptions to our existing regulation.

The rule starts off by saying, "Notwithstanding noncompliance with the other standards that we have in our regulations," and I think that is inconsistent with the 1980 act.

Senator SIMPSON. I recall so distinctly that debate and my colleague at the time, and the question asked, and I remember the language was that our amendment would serve as an action-forcing mechanism but not force the shutdown of any nuclear powerplants. That's what we were up to. We all knew what was happening. We knew the hostage rule.

That's why we deliberated so long, and instead of serving as an incentive to encourage States to participate, it has devolved into a political tool, totally a political tool that is being used now to hold nuclear plants hostage. That is exactly what we were looking to resolve and that is why we did it that way with a utility plan. We knew the problem. The NRC has kind of blinked, and FEMA has just gone blind. So there we are now with the hostage situation which we tried to avoid so assiduously, and I think that that is very unfortunate, especially when we have State and local communities who are obviously not going to let that just go by the boards. Even Governor Cuomo, I think, acknowledged that they would protect their citizens even if they are totally opposed to nuclear plants.

We have the plants, billions of dollars invested. I am not ringing the gong for them. But this as a penalization that was never anticipated, and now here we are stuck with it, and the utility plans just seem to have been ignored, and that is a most puzzling thing to me, as if they didn't give the same degree of public health and safety.

Mr. ASSELSTINE. Senator Simpson, I couldn't agree with you more. And my own view is a utility plan ought to be considered, but that ought to be the standard: can it provide the same level of protection for the public health and safety, can it meet the same standards? If it can, then I think the utility approach ought to be

approved. In fact, we have licensing proceedings going on right now using the commission's existing regulations that are designed to answer that very question. The question is, if they can't meet that, are you prepared to accept a lower level of safety and allow the plant to operate even if FEMA says they can't provide assurance that the offsite emergency planning measures will be adequate?

Senator SIMPSON. Well, it was interesting, after the 1980 legislation, that the commission did not mention the utility plan option in their regulations, and that was something we explicitly provided in the legislation. I will come back to that.

I thank you, Mr. Chairman.

Senator BREAU. Thank you.

The Senator from New York?

**OPENING STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, U.S.
SENATOR FROM THE STATE OF NEW YORK**

Senator MOYNIHAN. Mr. Chairman, if I could make just a few opening remarks to say to our friends on the commission that this is now my eleventh year in this body, and I have risen to be the ranking member of the majority, and I arrived in a time when the world of nuclear power seemed relatively serene. It was beginning to be fairly clear that we would not reach that happy condition which one early advocate envisaged, where it would be uneconomic to meter atomic power, it would be so cheap it wouldn't be worth putting in and reading meters to find out how much you used, you'd just have it, that's all.

Senator BREAU. I remember that.

Senator MOYNIHAN. On the other hand, Three Mile Island came as a shock, and what I thought I learned from those hearings in the first instance was that the work place tradition of the traditional coal-fired public utilities, the thermodynamics which had been worked out pretty much by the 1920's had just been transferred to these new and wholly different machines.

Mr. Chairman, I asked the head of the public utility that ran Three Mile Island, how much money did the man who was on duty that night make a year. It was sort of like a Peter Sellers movie. He turned over his shoulder and then somebody turned over their shoulder and it went all the way to the back of the room where somebody knew, and they whispered. It turned out he was making about \$29,000 a year, which suggested they had just taken the practices from when they had probably been generating electricity for, oh, seventy-five years. The turbine was developed in Schenectady about 1904, and they knew exactly how to do it, but they didn't know that with this particular machine, you can make a mistake which in six seconds, if you don't get it right, you lose eastern Pennsylvania. I mean before that, you burned out some bearings and killed a workmate maybe, but not eastern Pennsylvania.

We have been trying to deal with that. Senator Simpson and I have been interested in it. We have proposed that a nuclear academy might be created to establish that this was a very serious activity and a prestigious job.

I remember visiting one plant in New York where up on the mine shaft, you might say, the guards were all turned out, beauti-

fully uniformed, brass buttons and leather, shiny buckles and all that. And down in the reactor core it looked like the back room of a 1920's gasoline station. I mean, people were running around in teeshirts and levi's and what not. They put them in uniforms now.

But on the other hand we find that we haven't really been able to break that pattern in Peach Bottom. Is that right, is that the Peach Bottom plant that they found the reactor operator sound asleep?

Well, you know, the pilots on a Boeing 747, they don't have a lot to do, but they don't go to sleep. That is the one thing they learn not to do, and the people who run nuclear submarines don't go to sleep either and so forth. We haven't changed our pattern.

Then we have problems with the commission itself, which I think, Mr. Chairman, you have talked about.

But I have to say the one great thing that really has astonished me is how divorced or how distant it seems to me the commission is showing itself from an understanding of American governance. We are a people of orderly processes in Government. We are a Government of consent, a Government of mutual obligation; it is a rare society that can see a Constitution in place for two centuries.

If I may be permitted to ramble just a bit, I was once our Ambassador to the United Nations and trying to stay awake one afternoon in the General Assembly. I would just ask you, of those 148 countries, how many both existed in 1914 and had not had their form of Government changed by violence since 1914? The answer is seven. Seven.

A society that has learned to govern itself so well in a world where this is rare, that we would not see that with respect to something as new and potentially horrendous in its application as nuclear power, requires the cooperation of everybody. It just does. That's the way we do. That's who we are. We don't force judgments in the face of implacable differences of view.

My State of New York has a great number of nuclear plants in an industry which is not doing well. The last plant ordered for which construction really began was in 1974. I don't know what the commission does most of the time excepting when you are ruling on things like Shoreham.

Now, after the Kemeny Commission, we had to deal with the problem. We have three nuclear plants at a place called Indian Point. The chairman may not know this, but I think Mr. Simpson does. They probably weren't put in the best place. It's about twenty miles from New York City, the largest concentration of population in our country. Still, it is in a valley and you can go north and south and east and west, and there are big highways on both sides of the river and there is the river itself and there is all manner of evacuation.

In the aftermath of the Kemeny findings and the 1980 legislation, the local Government and the State Governments went right to work saying, "Oh, my God, this sort of thing can happen. Now what do we do?"

Consolidated Edison put its people in uniform, and the various towns in Westchester and the State got into good, orderly, repeated exercises in evacuating the area at different stages of plant difficulty.

Then came along next a place called Shoreham, which in the judgment of a State that is perfectly willing to accept and has lots of nuclear plants, says, "No, you can't get out of that place. You put it in the wrong place, that's all, and it won't work." And the State has said it won't work, and the county has said it won't work, and the towns have said it won't work. And if you know the area, you know why it won't work. It is as unlike Wyoming, sir, as a part of the world could be.

Senator SIMPSON. I was listening intently there.

Senator MOYNIHAN. And that is not entirely to its advantage.

But old Senator Russell used to love the word "oxymoron." And he is a learned gentleman from the South, and I would like to suggest that the idea of an emergency evacuation plan that does not have State and local participation is an oxymoron. I think Commissioner Carr is quite right that it doesn't quite matter who draws up a plan if it's a good plan, but that State and local Governments must participate. It seems so elemental as not to involve, I say this, Mr. Chairman, a veto, but just simply it is just a precondition. The sine qua non without which there is no plan because there is no one to carry it out.

I, on the first day of the Congress introduced S. 40, which requires that the Federal Emergency Management Agency be the final judge of these plans. It just seemed to me that starting back in the civil defense days of World War II, we've developed a fair capacity new to the Federal Government, just as this whole subject is new, of emergency planning and disaster relief. And I think the letter that the FEMA sent us April 28 is a very persuasive letter.

Today, that legislation—which doesn't take this out of Federal hands at all, but says that the Federal agency that is responsible in this area should be the one that makes the decision—Messrs. Mrazek and Downey and Hochbrueckner, from the area, three Members of the House, have introduced it.

I will stop there, but I will say that when the three congressmen who represent the area and one of the Senators who represents the area, the State, say, no, I mean it is the tradition of American Government that you listen.

Thank you, Mr. Chairman.

Senator BREAU. Thank you, Senator Moynihan, for your words, which, of course, are well heeded.

Let me ask the chairman some questions about the Office of Investigation. Quite frankly, when I started looking into the investigative setup within the NRC to look at both external problems and internal problems, I become confused, and I would like you to comment on it.

We have the Office of Investigations within the NRC, I guess, to look at external matters.

Mr. ZECH. Yes, sir.

Senator BREAU. We have an office of inspector and auditor, which I take it is to look at internal investigations.

Mr. ZECH. Yes, sir, that's right.

Senator BREAU. We have established an investigation review board. We have established threshold limitations before matters can be referred to the Office of Investigations. I hear people say that the whole setup seems to resemble the fox guarding the chick-

en coop, that you are investigating your own actions, that even before we allow the investigative arm of the NRC to receive the right, if you will, to make an investigation, they have to have it referred to them by the NRC. In order to do that, we have to have something "that reaches a threshold limitation" before it even gets looked at.

We have pending legislation before the Senate that is going to say, look, none of this is going to work. We have to have something independent established. You have to take it out of NRC. We can't have this what some would call a mishmash of threshold limitations before things are referred.

We've got a situation now where the Department of Justice is looking into some of the things that are occurring within the NRC.

Please explain to this committee a couple of things. Tell us quickly, to the extent that you can, what the office of investigations is going to do, what about this threshold limitation that was established, why do we need it, why was it established, why did we establish an investigative review board, and what do all these things do other than perhaps protect matters that should be investigated?

Mr. ZECH. All right, sir. Thank you, Mr. Chairman. They are all very important issues, and I will be as brief as I can. The quickest one to understand, I think, is the Office of Inspector and Audit. That is the internal group. You can generally think of that as an Inspector General organization. It does indeed inspect our own people. Its responsibilities are to look into, inspect, and audit all internal organizations and our own people. That is a fairly clear-cut, I believe, organization, and their responsibilities are fairly well understood.

The Office of Investigations is different.

Senator BREAU. Let me just quickly ask you on that. How do they originate an investigation? Does there have to be a complaint from one of the commissioners?

Mr. ZECH. It could be, or from the staff. Most all the complaints or allegations that come to our Office of Investigations come from the staff. That's from the regional offices or the headquarters.

Senator BREAU. I am talking about the Office of the Inspector and Auditor for internal investigations.

Mr. ZECH. Oh. The Office of Inspector and Auditor can get a request just about from anywhere, anyone in the organization or one of the commissioners or wherever.

Senator BREAU. Do they have to have a request by someone?

Mr. ZECH. Yes, I think that would be the thing that would start it. You have to have some kind of initiation of an allegation that somebody did something in our organization wrong.

Senator BREAU. Well, suppose no one within the organization requests an investigation by the Office of Inspector and Auditor, do they not have the right to initiate it on their own?

Mr. ZECH. I don't understand, Senator. I'm sorry. You mean someone in our organization?

Senator BREAU. Well, I am just questioning about the office of inspector and auditor. Suppose nobody on your staff nor the commissioners make a request.

Mr. ZECH. Yes?

Senator BREAU. Would they have the independent authority to say, "We, on our own, think that something is wrong," can they get into it?

Mr. ZECH. You mean somebody in our organization?

Senator BREAU. Yes.

Mr. ZECH. Yes, they do.

Senator BREAU. Okay. They don't have to have a request necessarily?

Mr. ZECH. No. They have to make an allegation.

Senator BREAU. You have a comment on that, Mr. Asselstine?

Mr. ASSELSTINE. Mr. Chairman, they can self-initiate. If they are aware of information, even from information outside the agency that leads OIA to believe that an investigation should be conducted, they have the authority to self-initiate.

Mr. ZECH. If it comes from inside or outside our organization. But if it essentially accuses somebody in our organization of doing something wrong, that is turned over to our Office of Inspector and Auditor.

Senator BREAU. Okay. Office of investigations, tell us how that works.

Mr. ZECH. Office of Investigations is a different organization. It was formed, I believe, in 1982. Before that it was part of the office of inspection and audit. It was recognized that the office of investigations should have a stronger organization, as I understand it. The Office of Investigations investigates external matters; in other words, licensee wrong-doing, anyone outside of the NRC organization. It could be a contractor or someone outside of our organization.

Their investigations are almost all instigated, initiated by members of our staff. It is possible that they could be initiated by other outside agencies than our staff. But in most of the cases, the investigation would be initiated by something our staff will initiate themselves when they hear about something that should be looked into. So the staff gives the Office of Investigations the highest percentage of OI's workload by far.

Senator BREAU. What about the threshold limitation, what is all that about?

Mr. ZECH. Well, I can give you my personal view. When I first came to the commission, it was clear to me, looking into the Office of Investigations, that they didn't seem to have any threshold. I wasn't sure what they were investigating and why. I thought a threshold and some kind of priority as to what they were doing would be important. Their whole job is to advise the commission and the staff on wrong-doing that affects safety matters. That is the most important thing they do. After that, they can continue investigations and send them to the Department of Justice or continue their own investigations, whatever is necessary.

But if there is something to do with safety that is turned up by a member of our agency or someone else and it affects a plant, then the Office of Investigations advises us on the potential for wrong-doing and the staff then makes a comparable judgment on whether that raises a safety matter, does that wrong-doing have to do with safety? If it does, we take action.

The best example I can give you where we really did quite well was Peach Bottom. The staff received the report about possibly people sleeping in the control room. The Office of Investigations was contacted and, together working with the staff, the Office of Investigations realized rather quickly that it did look, if I understand what took place, it did look like they had sufficient evidence that there could be possible wrong-doing. That was OI's judgment.

The staff at the same time, with the combination of wrong-doing and potential sleeping on watch, recognized that that is an unsafe condition. When that was recognized, the plant was shut down. That was a cooperative arrangement, and that is exactly in my judgment how the Office of Investigations should work.

Senator BREAU. Has there been any matters raised that the commission has determined have not met the threshold limitation in order to be referred to the office of investigations?

Mr. ZECH. I am not aware of any. But that's the reason for forming the internal review board. That board was formed by senior staff members whose people generally initiate the recommendations. Now, some of the allegations that are sent to the Office of Investigations are very important, as I think the one at Peach Bottom was; others are of lesser importance. It seems to me that there should be some kind of a review group that will try to differentiate the priority, the threshold, the importance of investigations.

Now, to ask the Office of Investigations to do that, as we had done in the past, didn't seem to be appropriate to the extent that their duties are investigators. They don't necessarily have the background to decide whether that allegation will affect the safety of a plant in a serious way or not. That decision can best be provided by a technical person.

Senator BREAU. Mr. Chairman, do you not see the possibility for some in the general public to say that it appears that what has been set up is a rather complicated system to review complaints about the work that the NRC is doing, that the NRC itself then determines whether that complaint is serious enough to be investigated?

Mr. ZECH. These are things our licensees are doing, Mr. Chairman, not that we are doing.

Senator BREAU. But perhaps because of lack of supervision by the NRC or perhaps because of improper instructions by the NRC or perhaps because of collusion by the NRC.

Mr. ZECH. Certainly. It could be any of those reasons.

Senator BREAU. I am not alleging that, I am just saying that some of the actions that licensees may or may not be taking may be because of action or inaction on the part of the NRC, and is not the NRC making the determination whether that should be investigated or not?

Mr. ZECH. That's exactly right, and that's the point of having a review board that allows the commission and senior staff—we are the ones responsible for safety ultimately—it allows us to control, direct, put those resources for investigation where we really think they are needed rather than having them going off and perhaps investigating something of much lesser importance. It allows us, if we are responsible, Mr. Chairman, it allows us the ability to direct

and control where we think investigations should best help our safety responsibilities.

Senator BREAUX. Well, the problem is in controlling investigations. You just used the word "control." I mean if I control me being investigated, I am going to find very quickly that I don't need to be investigated.

Mr. ZECH. We are not necessarily controlling that. We are controlling the priority of investigations by OI of licensees. We are controlling what goes first, what goes second, what goes third. This is what I mean by control and direction.

Senator BREAUX. I do not want to monopolize the time.

Senator Simpson?

Senator SIMPSON. Thank you, Mr. Chairman.

That was a most interesting relation of all the things we have been up to that Senator Moynihan spoke of. I remember exactly the startling revelation of what the control room operators were making, and I remember the figure of \$29,000, all those things come back very clearly to me.

I would just add, and then ask one more question. The one thing, though, that is very true is that in each reactor in the United States, the State has approved the site. Now, that is the reality of where we are. The State at some point—the State—approved the site. The State could have rejected a site. I think the State of New York did reject a site, Green County or something, and that was rejected. Land use planning. But it was always the State or the local community that was discussed. Local officials at one time did approve Shoreham. At one time they did. And now Shoreham has gone forward to spend \$4.5 billion of somebody's money, \$4.5 billion. That is an extraordinary figure, but that is true. It was up from \$4.2 billion.

At one time, as I say, local officials did approve. Then something went awry in the political arena, Democrats and Republicans alike, when they suddenly realized this thing was going to go onstream. And that the rates were going to go up was part of it. Now, if they don't bring it onstream, the rates will go up.

I remember visiting with these extraordinary, vital, and vigorous people, and since I was chairman, they immediately said, "Well, you've got more antelope than you do people out there, so why are you even talking to us?" And I said that we preferred that out there in Wyoming.

I could understand their pain as they dealt with me on that. But I thought of where we are or were, Mr. Chairman, with Superfund, and we finished a very tough conference, and I was on that conference where, when we had a chemical spill or hazardous substance, we presumed that Government would act responsibly. And that is the thing that is not presumed here. And that is difficult. It's a Catch-22.

I would ask Mr. Asselstine one more question since he differs from the other commissioners.

If I understand your position, you are arguing that a utility plan can never serve as a basis for issuance of an operating license unless you have either State or local participation in implementing that plan. How do you reconcile that view with the very clear directive in the 1980 Conference Report—and I have that; that was

Senator Hart, Representatives Vento, Udall, we were all there—stating that, “The conferees sought to avoid penalizing an applicant for an operating license if a State or locality does not submit an emergency response plan to the NRC for review”?

It appears to me that the argument simply reads the utility plan provision right out of the statute. It insists on State or local cooperation as a condition for approving a utility plan when it is the very problem that the utility plan was intended to address. Isn't that truly a Catch-22?

Mr. ASSELSTINE. Senator Simpson, I would not go quite as far as the statement that you indicated. I would give the utility an option, an opportunity to try to demonstrate that the utility plan approach will work. But what I would insist upon is that it be judged by the same standards for determining the adequacy of those arrangements as you would use to judge the adequacy with State and local Government participation.

I suspect that it may be very difficult, and it may even be impossible, to meet that test if you don't have the State and local Governments involved, for precisely the reason that Commissioner Carr had mentioned earlier. All of our requirements are premised—and FEMA's as well—are premised on the assumption that you have planning and training and preparedness and that you supplement that with an ad hoc response to the extent necessary. And by cutting the States and local Governments out of the process by their not participating, what you are doing is converting this into an essentially completely ad hoc kind of response.

It may be very difficult to show that that kind of an arrangement will meet the standards. But I would say let them try. That is precisely what the applicant is trying to do in the Shoreham case right now. They have a utility plan, and that utility plan is being litigated to determine whether it will meet our existing standards.

I think that is what the Congress had in mind: allow the consideration of a utility plan. What I don't think the Congress had in mind was saying you can rewrite the standards to accept a lower level of protection if you don't have State and local Government involvement.

I don't think, quite frankly, that what the Congress did in 1980 was a perfect solution to this problem. It is a very vexing and difficult and perplexing problem. I think what the Congress wanted to do in the 1980 act was say let's consider a utility plan if the utility has one and if the States and local Governments don't prepare one, let's see if that can compensate for the lack of State and local Government plans, but it may not be a perfect solution because they ought to be judged by the same standards.

Senator SIMPSON. Mr. Chairman, thank you. I think I agree with you but there were two things we always agreed on, and that is the veto and the hostage plan. We knew what we were doing there.

Mr. Chairman, thank you. I will submit the remaining questions. I have to go to another hearing.

Senator BREAUX. Senator Moynihan?

Senator MOYNIHAN. If my good friend from Wyoming could just remain for a moment.

Senator SIMPSON. I will endure.

Senator MOYNIHAN. If my good friend will allow me, stay with me just a moment, because I think all of us are going to get much better understandings and answers if we know how suddenly this technology has come upon us. The problem of the operator asleep and not knowing how to fix the bulbs and so on, is that the oldest, largest uneventful and unexciting enterprise in the United States has been running public utilities from the day, I guess, since Samuel Henzel was put away. Since then it has been a very orderly life, it is a good and necessary work, but it has not really attracted great entrepreneurs. They were the ones who thought up the turbines and thought up the ideas and so forth, and you know, it's steady work and there you are.

But to have this group suddenly take on a technology it had never known and a technology which itself just boomed in 15 years was more than the organizational arrangements were capable of, I think.

It is so new, the man who was standing next to Oppenheimer at Alamogordo is still meeting his seminars at Cornell. That is how new this experience is to the race.

I have an example. After the bomb went off, there isn't any question that the physicists were worried, what had they done, and Atoms for Peace came out of that—and out of Atoms for Peace may come proliferation, for all we know—and the notion of let's get out and find all the domestic uses for this. And let's not get into the business of what the motives were, we began very actively promoting the use of this new technology.

At one point, in the State of New York, to give you another little story, Governor Rockefeller, at the urging of the then-Atomic Energy Commission, brought in 400,000 gallons of the most poisonous stuff in the world, half of it from Hanford, from a little hamlet called West Valley, New York, where they were going to revitalize a declining dairy industry by reprocessing this fuel and extracting the plutonium and sending it forward because there was going to be a great shortage of uranium and so forth and so on.

Well, a very wise attorney in New York, in Buffalo, wrote the contract for the company that decided to build this plant and reprocess it, which said, "If we aren't making money in twenty years, it's yours."

Well, by the time they had closed down, found what this was, found there was plenty of uranium and not much demand, plutonium is just awfully dangerous stuff to have around, the next thing you know, New York State had 400,000 gallons of this stuff on its hands, and it wasn't quite clear that the metal used in the tanks was quite the right metal, and the next thing, we had the prospect of irradiating the Great Lakes.

Well, that wasn't a great success. Now, thanks to Scoop Jackson and some other wonderful people, we are using that plant as our one pilot plant in the country where we are going to learn to glassify. I mean, if I would say there was one huge miscalculation made about atomic energy—and it has been put very graphically in the kind of image that the Senator likes himself, you know, we paid too much attention to what goes into the front of this animal and not enough attention to what goes out the back of this animal.

Senator SIMPSON. In the proper order. That is true.

Senator MOYNIHAN. You know, it's a big problem we didn't quite anticipate. I think in that sense we have to ask ourselves—and I know you have to go, sir—but how do we learn as we go along with this technology?

Senator SIMPSON. And, Pat, now we are going to go into the issue, we have 108 plants onstream, we are going to get into issues of how to transport the waste material, we can't find anywhere to put it. There won't be just three Congressmen and two Senators from every area, everybody will be saying we don't want the stuff, and we have the technology, and they're onstream. It's a troublesome thing, a troublesome thing.

Senator MOYNIHAN. Yes. Coming. Yes.

Senator SIMPSON. Thank you, Pat.

Senator MOYNIHAN. Mr. Chairman, I have three questions which I would like to ask of Commissioner Roberts. May I ask if I may do that at this point?

Mr. Roberts, I have the following three questions. First, are you prepared to answer specific questions on your actions regarding Middle South Utilities and documents bearing your initials?

Mr. ROBERTS. Senator Moynihan, as you may already know, on April 30 several Members of the House of Representatives addressed a letter to me. The letter requested that I resign from the commission in light of my testimony before the Senate Governmental Affairs Committee on April 9, 1987.

I responded to the letter this morning in writing. I would like to submit copies of that letter to the committee at this time in response to your question. I fully recognize that my actions in 1985 are a matter of legitimate concern to members of this committee. My conduct is, however, already under scrutiny and is the subject of a full and independent investigation already being conducted by the Justice Department.

I have, therefore, been counseled that I should limit any public statements on the matter to the contents of the letter which I would like to place before the committee now. I therefore hope and respectfully request that the committee defer further questioning on this matter until the Justice Department inquiry has run its full course. I would like to give you my letter for the record now.

Senator MOYNIHAN. I am sure the chairman will place that in the record.

Senator BREAU. There is no problem making it part of the record. Would you clarify what is the response that we are putting in the record, in response to what question? What does it ask?

Senator MOYNIHAN. Well, I have two other questions I would like to ask.

Senator BREAU. While we put this one in the record, I want to make clear that it is in response to what?

Mr. ROBERTS. This is a response from me to five Members of the House requesting my resignation, and in my response I reiterate my understanding of the facts that are at issue.

Senator BREAU. All right. That will be made part of our record, Senator Moynihan.

[The letter referred to follows:]



OFFICE OF THE
COMMISSIONER

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

May 6, 1987

The Honorable John D. Dingell
Chairman, Committee on Energy & Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

I am writing in response to your request that I resign from my position as a Commissioner of the Nuclear Regulatory Commission ("NRC"). I have addressed identical responses to each of the co-signatories to your letter of April 30.

As you know, I have served on the NRC since August 1981. With the exception of the current controversy, which I address below, neither my integrity nor my faithfulness to the duties of this office have ever been questioned. Throughout my tenure as a commissioner, I have endeavored to conduct myself in accordance with a strict and exacting code of ethics intended to avoid any conflict of interest or appearance thereof. The facts and circumstances surrounding the matters raised by Senator Glenn on April 9 do not, I respectfully submit, suggest otherwise.

In the spring of 1985, a member of the NRC's Office of Investigations ("OI") -- an office charged with the responsibility for monitoring licensee compliance with nuclear regulatory statutes and regulations -- discovered an internal NRC document in the files of Louisiana Power & Light Co., a subsidiary of Middle South Utilities ("MSU"). The document bore markings which suggested that it had come from files in my office.

The memorandum in question was dated June 8, 1983 and was written by Mr. James Joosten, the Technical Assistant to then Commissioner Gilinsky. Mr. Joosten's memorandum reviewed and summarized a number of allegations concerning MSU's nuclear power facility in Waterford, Louisiana, which had been brought to his attention by a free-lance reporter for Gambit Publications in New Orleans. A series of letters and news articles from Gambit Publications were appended to the memorandum (although the attachments apparently were not included in the copies found at the Waterford plant). Mr. Joosten's memorandum requested that the NRC's Office of Investigation & Enforcement look into the charges.

A cover letter dated June 15, 1983 was also found with Mr. Joosten's memorandum. The author of that letter was MSU's Washington representative, a Mr. George White. The letter suggested that Mr. White had obtained the Joosten memorandum from NRC personnel.

The investigator who found the documents, Mr. William Ward, brought the matter to the attention of Mr. Ben Hayes, his supervisor and the head of OI.*/ Mr. Hayes, in turn, reported the discovery to the Office of the Chairman of the Commission in 1985, Mr. Palladino. The Chairman discussed the matter with Messrs. Hayes and Ward, notified me of the problem and made an express and written determination that, pursuant to the Reorganization Act of 1980, the responsibility for dealing with the apparent leak rested with my office.

Upon receipt of copies of the memorandum, I called my then-current staff into my office. I told them of the discovery of the document and asked if any of them had been responsible for its apparent "leak." All denied any involvement in the matter. Believing my staff to be honest and forthcoming, I saw no need to challenge their veracity or to press the matter further. Chief

*/ OI is to be distinguished from the Office of Investigations & Audits (OIA). OIA is charged with the responsibility of investigating matters relating to the possible breach of agency rules and regulations by agency personnel. The head of OIA, then and now, was and is Ms. Sharon Connelly.

among my reasons for this decision was confirmation at that time from the agency's Freedom of Information Act ("FOIA") office that the document in question had been released, without objection from any office within the agency, to the public in response to a FOIA request filed in August 1983.

After discussing the matter with my staff, I spoke with my fellow commissioners individually. I advised them of the discovery of the document in question at Louisiana Power & Light's Waterford facility and of the inquiries I had made of my staff. I also reviewed copies of the subject documents with them. Finally, I told the commissioners that I believed in the integrity of my staff and that I consequently was not going to pursue the matter any further.

On or about the same day, I met with Mr. Hayes and Mr. Ward in the presence of my legal assistant, Mr. Mac Cutchin. At that meeting, I asked Mr. Hayes for his records of the investigation because I feared that the matter could be used unfairly in an effort to bring discredit upon me and my staff. I told Hayes and Ward that I was satisfied that no one in our office was responsible for the leak.

In retrospect, after completing my inquiry, it may have been appropriate to refer the matter to OIA. The absence of any such reference, however, should not be viewed as improper. The Chairman had expressly referred the matter to me for disposition. Moreover, at no time did I direct or otherwise instruct Mr. Hayes that he was not free to refer the matter to OIA. If Mr. Hayes felt that there was anything inappropriate about my actions at that time, I submit that he would have pursued the matter further, referred it to Ms. Sharon Connelly, discussed it with the Chairman or other commissioners, or confronted me or my staff with his concerns.

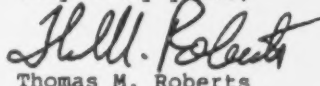
When I appeared before Senator Glenn's Committee on April 9, 1987, I truthfully believed that I had not retained any of the documents turned over by Mr. Hayes some two years earlier. No known office file was, therefore, believed to contain any documents responsive to the Committee's request for material "concerning potentially inappropriate" contacts with licensees.

On April 21, Senator Glenn referred the matter to the Justice Department for investigation. Shortly thereafter, I retained counsel. On the afternoon of April 27, at the behest of counsel, I reviewed a miscellaneous group of agency and personal documents kept in the well of a desk drawer. It was at that time that I discovered a copy of the memoranda in question and the originals of Mr. Hayes' notes of discussions with Chairman Palladino. I advised Senator Glenn of the discovery the next morning and forwarded copies of the memoranda and notes to his office. I acted promptly and fully acknowledged my error in believing that all copies of Mr. Hayes' records had been discarded.

The entire matter is, of course, currently before the Justice Department. I am confident that the investigation will clear me of any wrongdoing and exonerate my name.

I respectfully submit, when measured against six years of an otherwise unblemished record of service, this incident does not warrant resignation. I continue to serve the President and the nation faithfully with dedication and purpose.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Th. M. Roberts", written in a cursive style.

Thomas M. Roberts

Senator MOYNIHAN. Mr. Chairman, I would still want to continue with the two other questions.

You were a principle of Southern Boiler and Tank Works. Did that company have business with Middle South Utilities; and for which plants did your company provide parts, if that is the case?

Mr. ROBERTS. I disassociated myself from that company in 1978. Subsequently, the company is literally out of business. The machinery and equipment was sold at auction.

When I was there, we did some work at Arkansas. I cannot remember the magnitude. We did not do the containment liner. We did a little work at Grand Gulf, which is also owned by Mid-South Utilities. To my knowledge, we did absolutely nothing for Louisiana Power and Light. But I don't have those records, I don't have access to them, and all of this is going back some 15 years ago.

Senator MOYNIHAN. Well, I am sure we don't mean to list off all the details the question raises.

Mr. ROBERTS. Sure.

Senator MOYNIHAN. Finally, sir, did you seek or receive opinion of counsel regarding whether you should consider recusing yourself from matters regarding Middle South?

Mr. ROBERTS. I do not recall. I have certainly consulted with the office of general counsel, when I was first confirmed and confirmed the second time, about potential conflicts. I can't answer you. I will answer you in writing.

Senator MOYNIHAN. Could you, because that is a rather specific question, could you give us that answer in writing?

Mr. ROBERTS. Certainly.

Senator MOYNIHAN. I appreciate that very much.

[The information requested follows:]



OFFICE OF THE
COMMISSIONER

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

May 21, 1987

The Honorable Patrick Moynihan
United States Senate
c/o Committee on Environment and
Public Works
Room SD-458, Dirksen Building
Washington, D.C. 20510

Dear Senator Moynihan:

Reference is made to the hearing before the Subcommittee on Nuclear Regulation on May 6, 1987. At the hearing, I committed to provide you with a written response to the following question:

[D]id you seek or receive opinion of counsel regarding whether you should consider recusing yourself from matters regarding Middle South?

T. 61, l. 20-22.

The enclosed statement and exhibits are respectfully submitted in response to your question and for insertion into the transcript of the proceeding at T.62.

Very truly yours,

Thomas M. Roberts

cc: Senator John Breau
Mr. Paul Chimes, Editorial Director
Mr. Edward S. Fay

STATEMENT OF COMMISSIONER
THOMAS M. ROBERTS
FOR INSERTION AT T.62 OF MAY 6, 1987
HEARING TRANSCRIPT OF SUBCOMMITTEE ON
NUCLEAR REGULATION IN RESPONSE TO
QUESTION POSED BY SENATOR MOYNIHAN

I was nominated for my initial term as a Commissioner of the NRC in the summer of 1981. The nature of my financial interest in Southern Boiler and Tank Works, Inc. (SBTW) and that company's transactions with regulated nuclear utilities (including two subsidiaries of Middle South in the 1970's) were disclosed and examined at that time by the NRC's Office of General Counsel and by the Office of Government Ethics. The opinion of both offices regarding recusal is reflected in the attached letter and memoranda:

- Exhibit A - Memorandum from OGC to Chairman Palladino, July 1, 1981
- Exhibit B - Letter from OGC to Office of Government Ethics, July 6, 1981
- Exhibit C - Memorandum from OGC to Secretary of Commission, August 11, 1981



UNITED STATES
CLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 1, 1981

EXHIBIT A

MEMORANDUM FOR: Chairman Palladino
FROM: *LB* Leonard Bickwit, Jr.
General Counsel
SUBJECT: TO SECURE APPROVAL OF CONFLICT OF INTEREST
EXEMPTION FOR THOMAS M. ROBERTS

The President has indicated his intention to nominate Thomas M. Roberts to be a member of the Commission.

Section 208(a) of Title 18 of U.S.C. prohibits a Government officer or employee from participating "personally and substantially" by the rendering of advice or otherwise in any matter in which he or an organization for which he is employed has a financial interest. Section 208(b) provides that this prohibition need not apply -- and thus an exemption may be granted -- where a determination is made that the financial interest is not so substantial as to be deemed likely to affect the integrity of the services which the Government may expect from such officer or employee.

Mr. Roberts has continuing financial interests in Southern Boiler and Tank Works, Inc. (Southern), a company which has had substantial involvement in the commercial nuclear field. Because of these interests, Mr. Roberts would be precluded by the restrictions of 18 U.S.C. 208(a) from participation in a wide spectrum of issues relating to containments and certain other matters related to Southern's nuclear contracts unless an exemption were granted. This restriction would clearly diminish his ability to function as a member of the Commission.

Southern Boiler and Tank Works, Inc., a custom steel plate fabricator serving the nuclear, petrochemical and food processing industries, was acquired by Chicago Milwaukee Corporation on October 3, 1978. In August 1978, work in connection with the construction of nuclear power plants, mostly involving the manufacture of containment liners, constituted approximately 80% of the company's business. However, since that time the amount of the company's nuclear work has declined sharply, and at the present there are only a few outstanding nuclear-related contracts. Southern is currently finishing up a contract for TVA on shield wall material (which should be completed by the end of July), and has some small ongoing contracts to assemble and test strainers used in nuclear plant containments.

CONTACT:
Marian E. Moe, OGC
x43214

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MISC

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July 1, 1981

As reflected in his Financial Disclosure Report, Mr. Roberts has two types of continuing financial interests in Southern: he has a vested pension as part of Southern's employee retirement plan, and he holds a note from Southern issued in connection with his sale of the company.

Based upon information provided to my office about Southern's pension plan, I have determined that Mr. Roberts' participation in Commission decisions related to Southern or containment design and performance matters cannot affect the amount of his pension. Although his share in the pension plan was related to the company's profits during the time that Mr. Roberts was employed at Southern, his pension is not related to the company's present or future profits, and his role on the Commission cannot affect the amount of his benefits.

With regard to the note from Southern, Mr. Roberts has assured me that the amount and certainty of benefits due to him are not subject to Southern's future financial condition. Under the terms of the note, his remaining interest in Southern is for a fixed sum, to be reduced by a fixed amount on an annual basis, and is secured by assets substantially in excess of the amount due to him. No conditions of the sale were tied to the company's future financial health, and in the event of Southern's dissolution, he is a priority secured creditor. Based on the representations in the attached certification, I have concluded that his participation in Commission matters cannot affect the amounts he receives pursuant to the note.

Thus, I believe Mr. Roberts meets the requirements for an exemption under 18 U.S.C. 208(b) because his financial interests in connection with the pension plan and the note from Southern are not so substantial as to be likely to affect the integrity of his services to the Government.

18 U.S.C. 208(b) provides that the government official responsible for an individual's appointment has the authority to grant the exemption. The authority of the President, the appointing official in this case, is delegated to the Chairman of the Commission by E.O. 11222 (See 5 CFR 735.101.) */

*/ While the language of Section 503 of E.O. 11222 is not entirely clear on this point, the legal opinion in the attached memorandum from the Office of Government Ethics is a reasonable reading of the Executive Order and should be accorded substantial weight since OGE is the agency charged by statute with interpreting regulations pertaining to ethics problems issued by the President.

July 1, 1981

It should be noted that even if the Section 208(b) waiver is granted, and Mr. Roberts is thereby exempted from the restrictions of Section 208(a), he will still be obligated to recuse himself on matters where his participation would create an appearance of impropriety under E.O. 11222 and 10 CFR Part 0. It is my view that where a particular matter before the Commission affects a plant for which Southern has performed work, he should not participate in the matter to the extent that work performed or contracted for while he was at Southern is at issue. Our office will advise him on a case-by-case basis as to whether his participation is permissible.

I recommend that Mr. Roberts be granted the attached exemption under 18 U.S.C. 208(b). Pursuant to Commission policy, the exemption, if granted, will be placed in the Public Document Room.

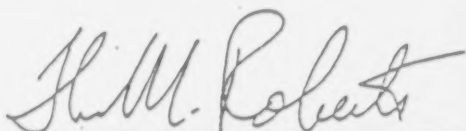
Attachments:

Certification of Thomas M. Roberts
Draft Certification Pursuant to 18 U.S.C. 208(b)
Letter from Office of Government Ethics

cc: (Limited Distribution)
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne
OCA

CERTIFICATION

I hereby certify that the amount and certainty of the interests due to me from the sale of Southern Boiler and Tank Works, Inc. (Southern) under the terms of the note from Southern and the installment sale of Southern referenced in my Financial Disclosure Report (Form 278) are not subject to the future financial condition of Southern. My remaining interest from the sale of Southern is a fixed sum, to be reduced by a fixed amount on an annual basis, and is secured by assets substantially in excess of the amount due to me. No conditions of the sale were tied to the company's future financial health, and in the event of the company's dissolution I am a priority secured creditor.


THOMAS M. ROBERTS

⁴⁶
Dated this 26 day of June, 1981.

THOMAS M. ROBERTS

CERTIFICATION PURSUANT TO 18 U.S.C. § 208(b)

Pursuant to Section 208(b), Title 18 U.S.C. (Pub. L. 87-849, 76 Stat. 1124), the Chairman of the Nuclear Regulatory Commission hereby determines, for the reasons set forth below, that an exemption from Section 208(a) be granted to Thomas M. Roberts, a nominee to the Nuclear Regulatory Commission, so that he may be permitted to review, without regard to the restrictions of Section 208(a), matters relating to Southern Boiler & Tank Works, Inc.

Southern Boiler & Tank Works, Inc., is a custom steel plate fabricator serving the nuclear, petrochemical and food processing industries. In the past, Southern Boiler has manufactured steel containment liners for a number of nuclear power plants and currently has some small outstanding contracts with companies involved in the nuclear industry. Mr. Roberts' participation in Commission business would be substantially diminished if he could not review matters related to Southern Boiler & Tank Works, Inc. Mr. Roberts has a vested pension from Southern Boiler, and holds a note from Southern issued in connection with his sale of the company. However, Mr. Roberts' participation in Commission matters cannot affect the amounts he is entitled to receive from these financial interests because they are unrelated to the future financial condition of Southern. Thus, I have determined that these interests

are not so substantial as to be likely to affect the integrity of Mr. Roberts' services to the Government.

NUNZIO J. PALLADINO
Chairman of the Commission

Dated at Washington, D.C.

this day of July, 1981.

UNITED STATES OF AMERICA

Office of
Government EthicsOffice of Personnel Management
Washington, D.C. 20415

July 1, 1981

MEMORANDUM

SUBJECT: 18 U.S.C. 208(b) waiver - Thomas M. Roberts (Nominee) - Commissioner of the Nuclear Regulatory Commission

FROM: J. Jackson Walter
Director, Office of Government Ethics

TO: Leonard Bickwit, Jr.
General Counsel and
Designated Agency Ethics Official
Nuclear Regulatory Commission

You have advised that you have undertaken review of the financial disclosure report of Mr. Thomas M. Roberts pursuant to our request of May 18, 1981. You have determined that it may be necessary for Mr. Roberts to seek the issuance of a conflict of interest waiver for the continuing financial interest which he has with the Southern Boiler and Tank Works Company of Memphis, Tennessee. You have now requested guidance from this Office on who has the authority to issue such a waiver under 18 U.S.C. 208(b)(1).

This Office is of the opinion that such findings attendant to the waiver and the issuance of the certification should come from the Chairman of the Nuclear Regulatory Commission. We have consulted with a representative of the Counsel to the President who concurs in our view.

Under the provisions of 18 U.S.C. 208(b)(1) the appointing official, in this case the President, has the authority to issue a waiver from the restrictions contained in 18 U.S.C. 208(a). This authority is delegated pursuant to Section 503, Part V of E.O. 11222 to the "head of an agency." Section 501 of Part V makes it clear that the "head of an agency" in the case of an agency headed by more than one person, such as the Nuclear Regulatory Commission, is the chairman of such agency. The relevant language of Section 503 as it applies to the Nuclear Regulatory Commission delegates the exemption granting authority to the Chairman of the Commission for "...any appointee of the President subordinate to or subject to the chairmanship of the head of a department or agency...."

Notwithstanding the language of Section 201 of 42 U.S.C. 5841 which states that "...each member of the Commission, including the Chairman, shall have equal responsibility and authority in all decisions and actions of the Commission..." for purposes of a 18 U.S.C. 208(b)(1) delegation, we have concluded that the Commissioners are subordinate to the Chairman.

E.O. 11222 clearly contemplates that this authority would reside in the chairman of the collegial body. We find nothing in the provisions of Nuclear Regulatory Commission Reorganization Plan No. 1 of 1980 that alters the intent of the Executive Order.

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JR MISC PDR



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 6, 1981

EXHIBIT B

J. Jackson Walter, Director
Office of Government Ethics
Office of Personnel Management
Washington, D.C. 20415

Dear Mr. Walter:

Subsequent to my May 29, 1981, letter regarding Thomas M. Roberts, it has come to my attention that Southern Boiler and Tank Works, Inc., (Southern), a company with which Mr. Roberts has a continuing financial relationship, has been a subcontractor supplying components and services to nuclear suppliers and that its nuclear-related business has at times constituted the bulk of the company's work. As a result, I am writing to supplement my earlier determination that Mr. Roberts' financial interests do not create any conflicts of interest or present any appearance of impropriety.

Southern is a custom steel plate fabricator serving the nuclear, petrochemical and food processing industries which was acquired by Chicago Milwaukee Corporation on October 3, 1978. In August, 1978, work in connection with the construction of nuclear power plants constituted approximately 80% of the company's business. However, since that time the amount of the company's nuclear work has declined sharply, and at present there are only a few outstanding nuclear-related contracts. Southern is currently finishing up a contract for TVA on shield wall material, the completion of which is anticipated by the end of July, and also has some small ongoing contracts to assemble and test strainers used in nuclear plant containments.

As reflected in his Financial Disclosure Report, Mr. Roberts has two types of continuing financial interests in Southern: he has a vested pension as part of Southern's employee retirement plan and he holds a note from Southern issued in connection with his sale of the company.

Based upon information provided to my office about Southern's pension plan, I have determined that Mr. Roberts' participation in Commission matters cannot affect the amount of his pension. Although his share in the pension plan was related to the company's profits during the time that Mr. Roberts was employed at Southern, his pension is not related to current or future profits.

July 6, 1981

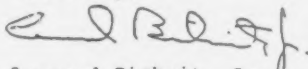
With regard to the note from Southern, Mr. Roberts has assured me that the amount and certainty of benefits due to him are not subject to Southern's future financial condition. Under the terms of the note, his remaining interest in Southern is for a fixed sum, to be reduced by a fixed amount on an annual basis, and is secured by assets substantially in excess of the amount due to him. No conditions of the sale were tied to the company's future financial health, and in the event of Southern's dissolution he is a priority secured creditor. Thus, his participation in Commission matters cannot affect the amounts he receives pursuant to the note. The attached certification of Mr. Roberts provides the bases for this conclusion.

Under 18 U.S.C. 208(a), an NRC Commissioner is precluded from acting on matters affecting an entity in which he has a financial interest. Thus Mr. Roberts would have to recuse himself from participation in matters affecting Southern unless he were granted an exemption under 18 U.S.C. 208(b). I believe Mr. Roberts meets the requirements for a waiver of the restrictions of 18 U.S.C. 208(a) because his financial interests are not so substantial as to be likely to affect the integrity of his services to the government. The Chairman of the Commission agrees and has granted the attached exemption pursuant to 18 U.S.C. 208(b).

Apart from the restrictions of 18 U.S.C. 208(a), because Southern has performed work for a number of nuclear companies and suppliers, in certain circumstances there could be a question of the propriety of Mr. Roberts reviewing matters involving work performed by his former company. Thus, where in his role as a Commissioner Mr. Roberts is in a position to act on a particular matter affecting a plant for which Southern has performed work, he should not participate in the matter to the extent that work performed or contracted for while he was at Southern is at issue. Since it is difficult to predict how such situations will come up in the future, my office will monitor those matters where a problem is likely to arise and will advise Mr. Roberts as to whether his participation is permissible on a case-by-case basis.

Assuming that Mr. Roberts recuses himself from such cases on the advice of this office, I certify that there is no conflict of interest or appearance of impropriety with regard to Thomas M. Roberts' appointment to the Nuclear Regulatory Commission.

Sincerely,



Leonard Bickwit, Jr.
General Counsel

Enclosures:

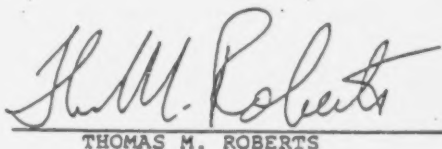
Certification of T. M. Roberts

Certification Pursuant to 18 U.S.C. 208(b)

cc: Thomas M. Roberts
(w/encl.)

CERTIFICATION

I hereby certify that the amount and certainty of the interests due to me from the sale of Southern Boiler and Tank Works, Inc. (Southern) under the terms of the note from Southern and the installment sale of Southern referenced in my Financial Disclosure Report (Form 278) are not subject to the future financial condition of Southern. My remaining interest from the sale of Southern is a fixed sum, to be reduced by a fixed amount on an annual basis, and is secured by assets substantially in excess of the amount due to me. No conditions of the sale were tied to the company's future financial health, and in the event of the company's dissolution I am a priority secured creditor.


THOMAS M. ROBERTS

Dated this th26 day of June, 1981.

THOMAS M. ROBERTS

CERTIFICATION PURSUANT TO 18 U.S.C. § 208(b)

Pursuant to Section 208(b), Title 18 U.S.C. (Pub. L. 87-849, 76 Stat. 1124), the Chairman of the Nuclear Regulatory Commission hereby determines, for the reasons set forth below, that an exemption from Section 208(a) be granted to Thomas M. Roberts, a nominee to the Nuclear Regulatory Commission, so that he may be permitted to review, without regard to the restrictions of Section 208(a), matters relating to Southern Boiler & Tank Works, Inc.

Southern Boiler & Tank Works, Inc., is a custom steel plate fabricator serving the nuclear, petrochemical and food processing industries. In the past, Southern Boiler has manufactured steel containment liners for a number of nuclear power plants and currently has some small outstanding contracts with companies involved in the nuclear industry. Mr. Roberts' participation in Commission business would be substantially diminished if he could not review matters related to Southern Boiler & Tank Works, Inc. Mr. Roberts has a vested pension from Southern Boiler, and holds a note from Southern issued in connection with his sale of the company. However, Mr. Roberts' participation in Commission matters cannot affect the amounts he is entitled to receive from these financial interests because they are unrelated to the future financial condition of Southern. Thus, I have determined that these interests

are not so substantial as to be likely to affect the integrity of Mr. Roberts' services to the Government.


NUNZIO J. PALLADINO
Chairman of the Commission

Dated at Washington, D.C.
this 6th day of July, 1981.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 11, 1981

EXHIBIT C

MEMORANDUM FOR: Samuel J. Chilk
Secretary of the Commission

FROM: *mm* Marian E. Moe, OGC

SUBJECT: CONFLICT OF INTEREST QUESTIONS REGARDING
COMMISSIONERS BRADFORD AND ROBERTS

You asked me to review some of the conflict of interest concerns regarding Commissioner Bradford and Commissioner Roberts. This memorandum describes the areas where questions are most likely to come up.

Commissioner Bradford has recently announced that he will be leaving the NRC next March to work for the State of Maine. Since Maine is an intervenor in the Maine Yankee spent fuel pool expansion proceeding, Commissioner Bradford has indicated that he will not participate in any decisions related to that proceeding. If Maine is a participant in any other proceedings, Commissioner Bradford would also be prohibited from participating in a decision on that matter by the restrictions of 18 U.S.C. 208 and 10 CFR 0.735-22. I am not aware of any other proceeding in which Maine is a participant. It has been past practice that a Commissioner who is not participating in a particular matter does not receive the documents concerning that matter.

All Commission employees, including Commissioner Roberts, are prohibited from participating in any matters in which they have a financial interest. (See 18 U.S.C. 208 and 10 CFR 0.735-21.) Although Commissioner Roberts has a continuing financial relationship with Southern Boiler & Tank Works, Inc. because his interests are not so substantial as to be likely to affect the integrity of his services to the government, he has been granted an exemption from the 18 U.S.C. 208(a) prohibition as to Southern Boiler.

Apart from the restrictions of 18 U.S.C. 208(a), because Southern Boiler has performed work for a number of nuclear companies and suppliers, in certain circumstances there could be a question of the propriety of Mr. Roberts reviewing matters involving work performed by his former company. Thus, where in his role as a Commissioner Mr. Roberts is in a position to act on a particular

matter affecting a plant for which Southern Boiler has performed work, he should not participate in the matter to the extent that work performed or contracted for while he was at Southern Boiler is at issue. Since it is difficult to predict how such situations will come up in the future, OGC will advise Mr. Roberts and your office as to whether his participation is permissible on a case-by-case basis. To that end, it would be helpful for your office to notify OGC whenever issues which may involve Southern Boiler arise. I am attaching a list of plants for which Southern Boiler has performed work in the past and what the work related to. I wish to emphasize, however, that only where work actually performed by Southern Boiler during Commissioner Roberts' tenure there is at issue will he be advised to recuse himself. Thus it is not necessary to screen each document relating to one of the plants on the attached list unless it involved a matter (generally containment integrity) that relates to Southern Boiler's performance between the years 1962 and 1978.

Attachment:

List of Southern Boiler's Nuclear Customers

Compilation of Services and Components Supplied for Nuclear Facilities
as Provided by Southern Boiler and Tank Works, Inc.

Containment liner, dome and penetrations

Oconee Units 1, 2, 3
Arkansas Nuclear One, Units 1, 2
Midland Units 1, 2
Palo Verde Units 1, 2, 3

Auxiliary building spent fuel transfer liner

Arkansas Nuclear One, Units 1, 2

Sacrificial shield wall

Browns Ferry Units 1, 2, 3

Miscellaneous steel, reactor building fuel handling

Sequoyah Units 1, 2

Pressure vessel shield wall and penetrations

Grand Gulf Units 1, 2

Vent stacks, flow diverter steel doors, platform with shielding

Hartsville Units A-1, B-1, 2
Phipps Bend Units 1, 2

Senator MOYNIHAN. Thank you, Mr. Chairman.

Senator BREAUX. Mr. Roberts, let me continue along with the lines that Senator Moynihan was trying to develop. In your original answer to Senator Moynihan, you said that you were submitting this document, and did you say that you would not be commenting on any other questions that we might ask relating to the matter under investigation?

Mr. ROBERTS. Mr. Chairman, I have been counseled that I should limit any public statements on this matter to the contents of that letter. I would hopefully and respectfully request that the committee defer questioning on this matter until the Justice Department inquiry has run its full course.

Senator BREAUX. Would you define for us—because I had a list of questions that I wanted to get into, and I am not going to ask each one and have you have to comment to each that you can or cannot get into—but could you outline for the committee the areas that you have been advised not to testify on?

Mr. ROBERTS. My actions in 1985 with respect to determining who was responsible for the leak of a commission document in 1983 are the subject of a Justice Department investigation. At a minimum, I would require the assistance of my counsel before responding today to any more specific questions on the matter. I therefore respectfully ask again that you defer your questions until such time as the DOJ investigation has been completed or at least until I can have my counsel present.

Senator BREAUX. Well, the problem that that presents to this member, the chair of the subcommittee, is there are questions I have been asking the chairman and am going to be asking other members of the committee with regard to the whole operations of the NRC with regard to investigations. I think my first impression is that it is a mishmash that needs some attention. With regard to the Office of Investigations, the threshold limitations, the inspection, investigative review board, and the Office of Inspection and Audit.

I am having a problem because I want to ask you some questions about it, and you are saying that you are not going to be able to answer those questions.

Let me ask you this just as a general question. Do you feel that because of the investigation, which is involving matters under your official duties, that you have in any way been compromised in your ability to perform as a commissioner?

Mr. ROBERTS. No. No, sir, I do not.

Senator BREAUX. Coming before the Congress and not being able to answer questions that other commissioners are being asked and are responding to is not, in your opinion, compromising your position to function as a member of the commission?

Mr. ROBERTS. I am constrained in answering specific questions about this "incident" at Waterford. I don't think I am constrained or restrained from answering other questions before the Justice Department.

Senator BREAUX. Would you feel constrained to take that position on any matters that would relate to decisions or dealings with any of the utility companies or any of their contractors that have been mentioned as part of the investigation, or would you find

yourself in a position of being able to take positions and ruling and participating in hearings or activities concerning those particular companies?

Mr. ROBERTS. I would have to look at each thing on an individual basis, but I believe the latter.

Senator BREAUX. "The latter" meaning what?

Mr. ROBERTS. I could participate.

Senator BREAUX. Well, how can you justify to this committee the fact that you would be able to make decisions and vote and participate in rulemakings that may affect those companies, but that when it comes to answering a question before the Congress about your involvement with those companies, you feel constrained not to participate? Are you saying, "I can vote on them. I can make decisions that affect them. I can participate in debate that might affect that particular company, but don't ask me any questions about it"?

Mr. ROBERTS. Only that relate to the specifics of this "incident" that occurred in 1983 and 1985. I have no financial interest in any of these entities, none whatsoever. I made all the full financial disclosure. I do not think I would be impaired from acting as a commissioner. I cannot, or I am counseled I cannot, talk about the particulars of this one circumstance.

Senator BREAUX. What is the time frame that you are blocking out that we can't ask questions about?

Mr. ROBERTS. An event that allegedly occurred in 1983 and then actions that I took in 1985 that related to the 1983 event.

Senator BREAUX. Let me ask you about something in 1986 then. Why didn't you ask Mr. George White in 1986, when you met with him, how he got the memo from your office?

Mr. ROBERTS. I can only say I sincerely wish I had. I didn't. I am counseled I can't get into the specifics of this.

I will answer that question simply: I wish I had. I didn't. I had forgotten about the incident.

Senator BREAUX. Do you remember the purpose of that meeting in 1986?

Mr. ROBERTS. Well, I didn't when I was before Senator Glenn. Yes, I remember now. The purpose of the meeting was to have lunch and meet the new chief executive of Mid-South Utilities. Mr. White happened to be there because he is their Washington rep. It wasn't to have lunch with Mr. White. And I initially had no recollection of having lunch with him, because that wasn't the purpose of the lunch.

Senator BREAUX. Okay. So, for the purposes of our hearing, so that other members will understand and so that I can understand it too, you are not going to discuss or answer any questions to the committee with regard to the area that you set out. I understand that statement now. But that any dealings with those companies which were allegedly involved in the areas that you are not going to be answering questions about, you are not going to preclude yourself or step aside from participating in any commission activity or business dealing with those companies in the future?

Mr. ROBERTS. I think not, but I will have to consult my counsel.

Senator BREAUX. Chairman Zech, let me ask you this. Recently—I don't think we had covered this area—you were contacted by several Members of the House requesting that you not use inhouse

counsel to investigate some of the allegations raised during the Glenn hearing. Could you tell the committee how you propose to investigate those areas, what issues we are talking about, and how have you responded to the congressmen's request?

Mr. ZECH. Yes, sir. I responded last night. The letters were delivered this morning to the four congressmen: Congressman Dingell, Congressman Udall, Congressman Sharp, and Congressman Markey. The letter essentially said that the commission had agreed to their request to go for an outside investigator.

Commissioner Roberts did not participate in that response, and Commissioner Asselstine did not agree with the other three of us and will have a different statement to make in that regard. But we, the majority, responded that we would agree to their request to go for an outside investigator or outside inspector general as they requested.

Senator BREAU. What issues were they talking about when they asked to use outside counsel to investigate?

Mr. ZECH. The letter to me referred to my staff requirements memorandum in which I had assigned, with my fellow colleagues' concurrence, looking into two issues specifically; one involving the Office of Inspector and Auditor in an audit of Comanche Peak that had been questioned by the deputy. The investigator who conducted it, questioned the director's review of that investigation. That was one issue.

The second was a conversation between Mr. Stello and Mr. Steven White of TVA. And the question there was whether our Office of Inspector and Auditor had made a complete investigation. OIA had found no wrong-doing on Mr. Stello's part, but the charge, as we have said earlier, was that during internal investigations OIA only talked to Mr. Stello but had not talked to Mr. Steven White.

So I had directed, after the Glenn hearing, to reopen that and have Mr. Gary Edles look into the first issue as well as the second issue. He is administrative law judge in the NRC organization on the appeal board, and not in either of the other two organizations. I had directed that he make that investigation and look into both matters, the Comanche Peak audit and also the Stello-White conversation.

Senator BREAU. Who is he again?

Mr. ZECH. He is an administrative law judge in our organization, Gary Edles. He is a member of the NRC Appeal Board. He is one whom the commission has confidence in, and we believe, and I said in my letter we believe, he would have made a competent, integrity-filled investigation, and that is why we appointed him.

Senator BREAU. The matters that the House Members asked to be looked at by an outside investigator. Are you recommending someone?

Mr. ZECH. Not yet. We said in the letter that we would agree to their request to go to an outside investigator, either inspector general or counsel, but we haven't named one yet. We said when we did name one, we would get back to them.

Also, another part of the letter I should mention, Mr. Chairman, is the part that referred to Mr. Roberts, and they asked us to look into that matter, too. Since that had already been looked into and

referred to the U.S. attorney's office, the third part of my letter said that we thought that that should be coordinated with the U.S. attorney's office, and we essentially deferred that matter. When we select the counsel or the IG, we will, of course, recommend to him that he coordinate with the Department of Justice, the U.S. attorney's office on not only the investigation of Mr. Roberts that is being looked into, but on the other two matters also. Those are the instructions we will give him when we pick somebody. We haven't picked anyone yet, and we will be looking on that as the first order of business.

Senator BREAU. Mr. Asselstine, you disagree with that recommendation. Could you comment why?

Mr. ASSELSTINE. Yes, Mr. Chairman. I believe that there should be an outside look. I don't disagree with that part. My concern had to do with whether the steps that the chairman outlined in his letter really were going to be adequate, and I had three sets of concerns.

First, because at least two of these items, at least parts of two of these items, have been referred to the Department of Justice, I thought that the first priority ought to be to go talk to the Department of Justice and make sure that we could go ahead with an outside review, and if they had any concerns, at least we ought to know what those concerns were up front. It is not clear that the commission is committed to do that on those areas as yet.

Second, I think that using another agency's inspector general is not likely to prove provide fruitful. We have tried that in the past a couple of times, and all that has happened is that we have wasted a few weeks and the end result has been a "no" answer. So I think we ought to get on with it and pick a special counsel and get this thing moving as quickly as possible.

Third, I don't think that we should limit the authority of the special counsel strictly to these couple of items. I think that, as your opening statement recognized, there are some real legitimate questions these days about the integrity and performance of some senior people in this agency. I would give this special counsel some broader charter to identify if there are other questionable instances of conduct and to get to the bottom of those as well, and to come back with some broader recommendations both to the commission and, for that matter, to the Congress on whether administrative changes are necessary or whether legislative changes are necessary to ensure that the public really can have confidence in the NRC as being objective and fair and led by people with high personal integrity.

So I would give this outside group a broader mandate than strictly looking at a couple of narrow items, and those were my three comments.

Senator BREAU. I have to go vote. I have a few questions that I really think are important to get on the record. I will recess and come back and get to those couple of questions, and we will finish up.

The committee will be in recess for five minutes.

[Recess.]

[The letter referred to by Chairman Zech follows:]

Congress of the United States**Washington, D.C. 20515**

April 30, 1987

The Honorable Lando W. Zech
Commissioner
Nuclear Regulatory Commission
1717 H Street
Washington, DC 20555

Dear Mr. Chairman:

We are writing to express our deep dismay with respect to the events involving possible misconduct by high ranking NRC officials which were described at the April 9 hearing before Senator Glenn. Our concern has been further compounded by new information released by Senator Glenn today.

We have long believed that the safety of the nation's commercial nuclear reactors depends upon the effectiveness of the regulatory process. Similarly, public confidence in nuclear power depends upon the complete integrity of the NRC. Events of the kind described on April 9 and since raise profound doubt as to whether certain Commissioners and high-level staff have lost sight of their obligations to ensure safety and to meet the highest standards of personal conduct. If the allegations prove true, the persons responsible for such actions obviously no longer can be relied upon to fulfill their responsibilities to the public. In any case, the events described already have undermined public trust in the Commission's objectivity and judgement.

We believe that the Commission must take steps immediately to get its house in order and restore public confidence in its integrity. In our view, the actions you initiated last week are insufficient to the task. Mr. Edles has been asked to conduct two inquiries involving possible misconduct by NRC staff in connection with investigations of the Comanche Peak plant and the TVA. This inquiry has the potential to call into question the validity of major regulatory actions undertaken by the NRC, and to result in the removal from office of high level NRC officials.

It is simply asking too much of an official to perform a task having the potential for such a serious impact upon high officials of the very agency which employs him. Moreover, even if Mr. Edles were to manage to conduct an objective review, the appearance of a conflict of interest would undermine its usefulness.

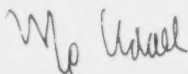
April 30, 1987

In addition, while we applaud the decision by the U.S. Attorney for the District of Columbia to assume responsibility for an inquiry into facts relating to the presence of sensitive NRC documents in a licensee's files, we are not certain that all aspects of the matter are being fully investigated. Although the U.S. Attorney's investigation will address potential criminal violations, and Congressional committees may pursue questions regarding Commissioner Roberts' testimony at the April 9 hearing, the matter also may involve questions outside the scope of those investigations. Regardless of whether Commissioner Roberts remains in office, we believe that findings from an inquiry into potential noncriminal violations could be invaluable in helping the NRC or Congress to determine whether new regulations, or legislation reforming NRC regulations, are needed. We believe, therefore, that the Commission should investigate the extent to which NRC regulations, or federal laws involving civil penalties, were violated by the actions surrounding the leak and Commissioner Roberts' subsequent handling of relevant documents.

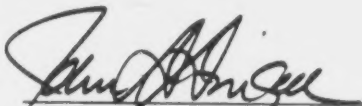
It is in the interest of both the nuclear industry and the public to ensure that the behavior of NRC employees satisfies the highest standards of integrity. This is particularly true for Commissioners and high ranking officials who bear the greatest responsibility for safety and to whom the public looks for assurance that nuclear power regulation is conducted independently and without compromise. Accordingly, we believe the two matters referred to Mr. Edles, and the question of civil or regulatory violations in connection with the leak and subsequent handling of Commission documents, should be turned over to either a special counsel retained by the Commission or to another agency's Inspector General.

We look forward to your appointment of an outside investigator. We request that you provide us a schedule for completion of the inquiry at that time.

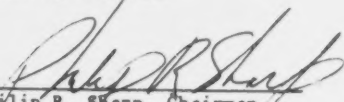
Sincerely,



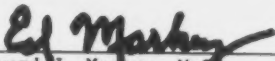
Morris K. Udall, Chairman
Committee on Interior and
Insular Affairs



John D. Dingell, Chairman
Committee on Energy
and Commerce



Philip R. Sharp, Chairman
Subcommittee on Energy
and Power
Committee on Energy



Edward U. Markey, M.C.
Committee on Energy and Commerce
and Committee on Interior and
Insular Affairs



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 5, 1987

The Honorable Morris K. Udall, Chairman
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Commission has received your letter of April 30, 1987 concerning issues involving alleged misconduct by agency officials. We share both your concern and your goal of ensuring the integrity of actions by NRC personnel. The Commission continues to believe that the actions taken thus far regarding these matters are responsible and appropriate. With respect to the two issues, investigations of the Comanche Peak plant and the TVA, we remain confident that Mr. Gary Edles, an Administrative Law Judge and a respected member of this agency's Appeal Board Panel, would conduct a thorough and professional review of those issues which certainly would have met this agency's preliminary assessment needs on these two discrete matters.

However, the Commission also recognizes the special concern about these matters and, in order to satisfy questions about the integrity of this agency in the performance of its duties, we have decided to retain either another agency's Inspector General or a special counsel to provide an independent review of the issues raised in your letter. We will be exploring options with a view toward securing such services as soon as possible. We will advise you promptly when the Commission has reached a decision on how to proceed.

With regard to the third matter, relating to the apparent disclosure of documents to a utility and the subsequent handling of pertinent documents within NRC, inquiry by an NRC-selected investigator may not be possible at this time, due to the pendency of the investigation by the U.S. Attorney for the District of Columbia. On April 22, 1987, the NRC's Office of Inspector and Auditor, which on April 14 was asked by Commissioner Roberts to investigate the apparent disclosure of documents, was asked by the Office of the U.S. Attorney not to proceed with that investigation. Therefore, we plan to discuss the appropriate role for an NRC investigation with the U.S. Attorney's office, and will also advise you promptly of the outcome of that discussion.

Commissioner Asselstine does not agree with this response and will provide his views in a separate letter. Commissioner Roberts did not participate in this response.

Sincerely,

Lando W. Zech Jr.
Lando W. Zech, Jr.

cc: Rep. Don Young

Senator BREAUX. The subcommittee will please come to order.

Mr. Asselstine, during our discussion of the office of investigations, I had asked the chairman some questions. One of them was dealing with the establishment of the investigation review board within the NRC that was done. I understand that you do not concur as a commission member with that decision. Would you give some information to the committee as to why?

Mr. ASSELSTINE. Sure, Mr. Chairman. I didn't think that there was any need for the investigation referral board, and in fact I thought that it could have some very negative effects on referrals to the office of investigations. This thing was billed as a management tool to try to help set priorities. That is the way the chairman has explained it, and I respect his judgment on it. I know that that is what he sincerely intended this group to do.

I don't think that that is what it was proposed for by the staff, and I don't think that that is the way it has worked. In fact, I think it has had a chilling effect on referrals of matters for investigations to the office of investigations. Nor do I think it was necessary. As a practical matter, our office of investigations has the ability, they are the trained investigators, they have the ability to decide whether matters that are brought to their attention are sufficiently serious or raise questions of wrong-doing to justify conducting an investigation.

They also meet very frequently with the technical staff in all of our regions and at headquarters to talk about priorities, and the office of investigations puts the attention on the cases that the staff tells them are the most important ones. If a case is coming up for licensing, for example, that is where the office of investigations puts its priorities.

I felt that if there was any concern about setting priorities, that that is the best way to handle it, simply in meetings, periodic meetings, between the investigators and the staff. The staff can tell the investigators what cases need attention; that is where OI can put their effort.

The part of this investigation referral board that I was particularly troubled about was this notion that some matters might be handled by the staff, the technical staff, rather than being referred to the office of investigations for investigation. That's how we got into trouble with investigations to start with.

Prior to the establishment of the office of investigations, I think in 1982, the technical staff did investigations of wrong-doing, and they simply didn't do a very good job. They weren't trained investigators; they didn't ask the right questions. When investigation reports came to the commission, they would leave serious questions unanswered. Poor investigative practices were used. Documents weren't controlled and maintained. In one instance, at least, the draft investigation report was given to the people who were under investigation. Just plain trouble.

The commission for that reason established a separate group of professional investigators to do these investigations of wrong-doing. My feeling is we shouldn't go back to the approach of letting the staff try to decide which matters ought to be referred to OI and trying to do some investigations on their own.

What we ought to do is stick with the existing system that I think has worked very well. Our office of investigations has performed extraordinarily since 1982. Many of the concerns and complaints and criticisms that we saw about matters not being investigated or being improperly investigated or this coziness with the industry on investigation matters, those problems have all gone away, and they have gone away because the office of investigations is professional and capable and competent. They ought to be the ones to decide whether a matter needs investigation or not. They should work with the technical staff to set priorities. This investigation referral board was just plain a bad idea.

As to the notion that this doesn't have a chilling effect on people within the staff bringing matters to the office of investigations, the director of our office of investigations has begun to look at whether there has been a reduction in the number of referrals. He believes that there has been a fairly substantial reduction in the number of cases referred to OI since this investigation referral board has been in effect, and I think that even the staff acknowledges that there has been a decline in the number of cases referred for investigation.

So I think it is having a chilling effect. It was a bad idea, to start with, and now the commission has the opportunity to get rid of it, and I think they should.

Senator BREAU. Mr. Chairman, why should it not be perceived that the office of review, or referral board—I guess its official name is investigative review board—why do we need it? Why should it be perceived as a level of protecting things that should be investigated?

Mr. ZECH. Yes. If I may, Mr. Chairman, I would like to correct something I said earlier. I said the office of investigations came from the office of Inspector and Auditor, and actually I should have said from the Office of Inspection and Enforcement. I would like to correct that for the record, if I may.

Well, let me just say this, Mr. Chairman. The investigation referral board was a trial board, put on for six months. I think the trial period was up just a week or so ago. We are now waiting to get from the Office of Investigations and from the staff, a recommendation to the commission as to how they think the board functioned. We will know soon what their views on it are.

I would just like to say that I think it was a good management tool. I believe that it had good potential. And now we will find out in their report. They can tell us and review the statistics and so forth and give us their views on how it really worked. It had certainly the potential for bringing some management organization and becoming a management tool that would assist the Office of Investigations in their backlog problem—they have a considerable backlog of investigations—to make sure we're looking at the right investigations.

Senator BREAU. Who is doing the review of the investigative review board?

Mr. ZECH. The Office of Investigations will give us a report and the staff itself. We will get that from both of them, and then it will come to the commission, and we will have the final decision as to whether we want to continue it or not or make improvements. I

just think it was a responsible action to take, a six-months' trial period, and we will decide at the commission level whether we should continue it or not.

Senator BREAUX. We would like to be able to take a look at that, if that is appropriate.

Mr. ZECH. Certainly. We would be happy to.

Senator BREAUX. We are trying to evaluate, the same situation that you are discussing right now.

Mr. Bernthal?

Mr. BERNTHAL. Mr. Chairman, I want to make clear that some of us dissent in one way, others dissent in others, and I did not entirely agree with the way in which the commission set up the investigations referral board. I frankly did not believe that as an administrative device to permit the EDO of this agency to attempt to set priorities on the many issues that were raised through normal staff channels that might be appropriate for investigation, that that attempt by the EDO to set priorities should have been viewed as a major commission decision.

The EDO is going to set those types of priorities in conjunction with the regional administrators and others, in any case. I think the establishment of this board was and should have been left as an administrative decision by the EDO to assist him.

I can just about recite my vote sheet on that issue. That was part of it. The other part was that I said, "But under all circumstances it should be made very clear to any member of the staff that if they so desire, they are free to raise any issue at the office of investigations on their own." Now, to the extent that that has not been made clear, I would like to make it clear here today as I have in the past, and I think it needs to be made clear, if there is any doubt in the mind of any member of this agency that if he feels things aren't being handled in the way they should be, that he should not feel inhibited to step forward on his own.

The other point I want to make here is that the office of investigations, I believe at my behest and suggestion, was asked to participate on that investigations referral board. They have refused to do that. They have not gone forward and participated in the reviews and the meetings of that board.

Now, I would suggest to you that that seems to indicate a management and human relations problem there more than any dark motive or dark function associated with that review board itself. I do not think that, in principle, it was a bad idea.

Senator BREAUX. Mr. Asselstine?

Mr. ASSELSTINE. Mr. Chairman, I think, as Commissioner Bernthal well knows, we have an investigation report now with the commission in the Comanche Peak case in which an individual inspector had concerns of wrong-doing that he wanted to bring to the attention of the office of investigations and he was prevented from doing so by his management—criticized, in fact—for trying to bring that information, take that information to the office of investigations.

Mr. BERNTHAL. Well, I am not quite sure which incident Commissioner Asselstine is referring to. I am aware that there were some issues there that should have, and eventually were, brought before

the office of investigation and audit. Those issues would not go through the investigations referral board, in any case.

And by the way, I want to make that very clear, because it was unclear from earlier testimony, I think, Mr. Chairman. This investigations referral board does not have jurisdiction over issues that are raised that have to do with our internal agency problems or allegations that may be leveled against members of the agency.

Senator BREAU. Well, it's touchy. It's obviously a difficult thing to come to a conclusion on. We would like to have the report that will come from OI and have us take a look at what their comments are.

Mr. ZECH. We will send both reports to you, Mr. Chairman.

Senator BREAU. Mr. Roberts, this committee has a problem. At least this member has a problem. The commission has been invited to appear and testify, and the commissioners are all here. All the commissioners, including yourself, have been sworn to testify that your statements that you are giving to the committee are true. And yet, you have answered some questions that we have asked; others, you have said, "I am not going to answer because my attorney has advised me not to."

The problem I have as the chairman of this committee is that I don't know what right you have to say that, "I am going to answer some of your questions, but I am not going to answer other questions." You have come before this committee of the Congress. You have sworn to tell the truth in response to the questions; and yet when we ask questions, as we have asked, you are saying, "I am not going to answer this one, but I am going to answer this one."

Now, what right as a commission member do you have in order to take that position?

Mr. ROBERTS. I have tried to say that the only thing I can't talk about is this item that Senator Glenn has referred to the Department of Justice.

Now, if you want me to comment with the question you just made, I agree with Commissioner Bernthal and Commissioner Zech.

Senator BREAU. What I want to ask you is what right do you have to say, "I am not going to answer a question"?

Mr. ROBERTS. It is a matter of a potential criminal matter and has been referred to the Department of Justice, and it relates to me, and I am counseled that it is not appropriate for me to comment on that matter at this hearing.

Senator BREAU. My question to you now is what right do you have to say that to the committee that you are not going to answer those questions that you feel would cause you difficulties?

Mr. ROBERTS. Well, for one thing, I don't have counsel.

Senator BREAU. But what right do you have anywhere in the law that would give you the right to say, "I am going to come before Congress, and I am not going to answer questions"?

Mr. ROBERTS. I haven't said I will not answer questions before Congress. I have said that I—

Senator BREAU. Okay. Let's try to see which ones you will answer and which ones you won't. You testified before Senator Glenn's committee on April 9 that you were "paranoid" and that you believe someone was trying to "set you up."

The question I have is who were you paranoid about, and who did you believe was trying to set you up?

Mr. ROBERTS. I had no specific person in mind when I said that.

Senator BREAUX. Is there any basis for saying it? I mean, was it just something you wanted to throw out on the table to the committee without any reason?

Mr. ROBERTS. I think there are some people and some entities who would not like to see me as a member of the Nuclear Regulatory Commission.

Senator BREAUX. Do you have any information as to who they might be?

Mr. ROBERTS. Not with any specificity.

Senator BREAUX. When Senator Glenn's staff had requested the documents that they had discussed and had asked you for, why did you not turn those documents over to Senator Glenn's committee?

Mr. ROBERTS. At the initial request?

Senator BREAUX. Yes.

Mr. ROBERTS. I didn't know I had them. And, Senator, if I may, I will repeat what I said earlier, I had asked most respectfully if the view and the knowledge that I have about the events are answered in the letter which I have given you today. I appreciate, I just gave you the letter, but the letter was just issued this morning to the five House Members who asked for my resignation, and that letter contains my understanding of those events and what I did or did not do.

Senator BREAUX. You had indicated to Senator Glenn's committee that you did not have the documents at the time they originally requested them?

Mr. ROBERTS. I didn't think I had them.

Senator BREAUX. I mean, that is what I am asking. Did you later find out that you had them, and when did you find out that you actually had the documents still in your possession?

Mr. ROBERTS. After all this thing began its momentum, I retained counsel, and as outlined in my letter to the congressmen, in preparing items that my counsel had asked for, I discovered in fact I did have the things in question. And I notified Senator Glenn the next day.

Senator BREAUX. Had you found the documents in your office?

Mr. ROBERTS. Yes, sir. And the details are in my letter.

Senator BREAUX. Was this matter ever, at your request, referred to the office of investigations in NRC?

Mr. ROBERTS. Senator Breaux, it is not my intention not to be cooperative. I sincerely mean that. But I am involved in a proceeding which would have criminal implications, and I am advised by counsel that it is not appropriate for me to publicly discuss this matter. It is in the hands of the Justice Department.

Senator BREAUX. The point that I am trying to follow— and I am not trying to be discourteous in any manner; I am trying to make sure that your rights under the Constitution are clearly protected. At the same time, I want to make sure that the rights of a committee of the Congress are adequately protected in the sense of witnesses who appear before the Congress, who sit and swear to tell the truth before a congressional committee are required then to answer questions.

If they don't answer questions without a reason to answer those questions—that is, a recognized reason under the Constitution—then that witness can be held in contempt of the Congress. What I am trying to do is to find on what basis are you not answering questions that this committee of the Congress are now asking you.

Mr. ROBERTS. The questions that I cannot answer are those that relate to the 1983 and the 1985 incident that—

Senator BREAU. I understand the area that you are telling me—

Mr. ROBERTS. But I will answer any other questions.

Senator BREAU. I understand what you are saying you are not going to answer. I just asked you a question which you said you were not going to answer. The question is why are you not going to answer that question? What exists in the law that gives you the right not to answer the question of the committee?

Mr. ROBERTS. I am involved in a potential criminal proceeding, and my counsel tells me I cannot discuss the details of the events that relate to that.

Senator BREAU. Has he explained to you why you have the right not to answer the committee?

Mr. ROBERTS. I am not sure I can answer that. I also am advised that I am entitled under the Sixth Amendment to be represented by counsel, and I do not have counsel today here in this room.

Senator BREAU. You have a right to have counsel if it is a criminal investigation, and that is not the purpose of this committee. The purpose of this committee is just to take testimony on the operations of the NRC, which you have appeared before the committee, sworn to tell the truth in your testimony. We have asked you specific questions which, I take it, you are refusing to answer.

My last question to you: On what basis are you refusing to answer the questions asked by this committee?

Mr. ROBERTS. May I respectfully ask that I answer that in writing, with consultation with my counsel? I am not a lawyer.

Senator BREAU. Is he here?

Mr. ROBERTS. No, sir.

Senator BREAU. How long would it take you to get to him?

Mr. ROBERTS. I would hesitate to speculate, but not weeks and months.

Senator BREAU. How about minutes?

Mr. ROBERTS. Sir?

Senator BREAU. How about minutes? Can I recess the committee and get him on the telephone and ask him? It's an important point.

Mr. ROBERTS. I don't think he's available.

Senator BREAU. By telephone?

Mr. ROBERTS. I don't think so. I can't answer that. He told me—I met with him this morning—he told me that he was tied up taking depositions all afternoon.

Senator BREAU. I tell you what, it is an important point, Mr. Roberts.

Mr. ROBERTS. I don't disagree with you.

Senator BREAU. And I don't want to delay it, but I think that it is my obligation to make sure that we adequately protect the rights

of a congressional committee and at the same time that your rights under the Constitution are adequately protected.

My question to you is: After having been sworn in to testify before this committee, this committee has asked you certain questions which you have stated that you are not going to be able to answer. My follow-up question to you is: Why not? Under what authority do you have that enables you to come before this committee and to refuse to answer questions that this committee has posed?

Mr. ROBERTS. Could I have a written answer to you by close of business tomorrow? Would that be acceptable?

Senator BREAU. I would appreciate it if you might be able to get your counsel on the telephone and ask him that. It is not, I don't think, a complicated question. If you come back and tell me he is unavailable, we will make some kind of arrangements to have you come back. The answer to that question is an important answer to this committee.

Mr. ROBERTS. Well, can you give me a few minutes to try to reach him?

Senator BREAU. Absolutely. I want to be totally fair on that, and at the same time be responsible to the committee.

I don't have any other questions, I think, to the other commissioners at this time.

Other members have questions that they would like to submit in writing.

Senator BREAU. I don't want to have the committee appear unduly harsh, but I think that what we are trying to do is to come up with recommendations that will in fact improve the operations of the NRC. The credibility of the NRC is our highest priority, and I know it is your highest priority, and we appreciate your working with us, Mr. Chairman.

Mr. ZECH. It is our highest priority.

Senator BREAU. With that, Mr. Roberts, we are going to recess the committee until 4:30, and see if you have a chance to get hold of the attorney so we can come back and ask you the questions that I have just asked you to find out.

With that, we will recess until about 4:30.

[Recess.]

Senator BREAU. At the time of the recess, we were questioning Mr. Roberts, and gave him an opportunity to contact his attorney to respond to the questions of the committee. Mr. Roberts is now back.

The point that the chairman would say in asking these questions and seeking answers is that it is very clear that each one of the commissioners, and Mr. Roberts included, when they take the oath of office, one of the things that you agree to do is to appear before congressional committees, and "appear" means appear and participate and respond to questions.

I have given Mr. Roberts an opportunity to contact his attorney. I would ask you now if you have been able to do that?

Mr. ROBERTS. I was unable to, Mr. Breau.

Senator BREAU. Well, the committee wants to be fair, and at the same time the chairman has a duty to protect the rights of the congressional committee to seek answers. If witnesses, particularly a public official, is unable to respond to a question, that there be a

legal reason for his lack of a response. That is the point that I am trying to determine.

I will say to Mr. Roberts in particular, we have a hearing scheduled tomorrow, at which other witnesses are going to be called on to testify about the matter before the committee today. I would like to see if I could ask you, Mr. Roberts, to return at that time. The hearing is scheduled to begin at 9:30. I would like for you to be able to be with us at that time.

Again, I want to be fair in the sense that if you have not had an opportunity to talk with your attorney and get a sufficient opportunity to discuss this with him, that we are going to be here during the day, and I would like you to communicate to the committee when do you think you would be able to make an appearance before us tomorrow.

Mr. ROBERTS. I certainly will.

Senator BREAU. Sir?

Mr. ZECH. Mr. Chairman, I have an appearance before a House committee tomorrow morning at 9:45.

Senator BREAU. I am only asking Mr. Roberts.

Mr. ZECH. All right, sir.

Senator BREAU. We have completed with the other Members of the Commission other than the written questions that we will be submitting.

I would also state that we would let the record show that our staff has talked with Mr. Roberts' attorney prior to these hearings to request if there were any parameters of which we could not get into, and have not heard back from him with that request, which was made last week. In order to be fair, the committee wants to point that out.

Mr. Roberts, we will see you, sometime tomorrow.

The committee will now stand in recess until 9:30 tomorrow morning.

[Whereupon, at 5:00 p.m., the committee was recessed, to reconvene at 9:30 a.m., on Thursday, May 7, 1987.]

[Statements submitted for the record and responses to additional questions follow:]

PREPARED TESTIMONY
SUBMITTED BY
UNITED STATES NUCLEAR REGULATORY COMMISSION

TO

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT & PUBLIC WORKS
UNITED STATES SENATE

CONCERNING
THE FY 1988 BUDGET REQUEST

PRESENTED BY
LANDO W. ZECH, JR.
CHAIRMAN

SUBMITTED: MAY 6, 1987

U.S. Nuclear Regulatory Commission
FY 1988 Budget Testimony

Mr. Chairman and members of the Subcommittee, the Commission appears before you today to discuss the authorization of NRC's FY 1988 appropriation request and FY 1989 estimate. With me today are my fellow Commissioners, the Executive Director for Operations, the General Counsel and the principal office directors.

Overview

The Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 assign the Nuclear Regulatory Commission important responsibilities. These responsibilities include assuring that the benefits of the peaceful use of nuclear energy are provided to our fellow citizens in such a way that the public health and safety and the environment will be protected and that the common defense and security are not compromised.

The Commission believes that sound and credible federal safety regulation is an important component in assuring the continuing safe use of commercial nuclear power. We at the NRC intend to continue to pursue a policy of firm and fair regulation of the nuclear industry.

Public confidence in nuclear power was shaken by the TMI accident. The Chernobyl accident has exacerbated the situation. We believe there are serious challenges today in order for our fellow citizens to continue to

receive the benefits of nuclear power. We at the NRC are structuring our programs to meet these challenges. Congressional support in providing us the needed resources is an essential factor in attaining success.

While there may be challenges, we believe it is important to recognize that commercial nuclear energy, for more than twenty years, has been making an important contribution to our nation's electrical needs and, with continued emphasis on safety, will be able to contribute to our nation's future energy needs. The Nuclear Regulatory Commission is composed of many dedicated and competent professionals who can be counted on to perform with integrity, candor, technical competence and with the very strongest commitment to safety in the service of the American people. With your continued support, Mr. Chairman, I believe the American people will continue to be very well served by the NRC.

The NRC's FY 1988 budget request and FY 1989 budget estimate reflect our commitments towards ensuring the continued safe operation of the 108 licensed nuclear power plants as well as the quality construction of those plants remaining to be brought on-line. Additionally, our commitments involve protecting the public from risks associated with the widespread use of nuclear materials under approximately 9,000 nuclear materials licenses; ensuring the safe transportation, storage and disposal of nuclear waste; providing appropriate safeguards for facilities and materials; establishing a more predictable and stable regulatory environment; encouraging nuclear power plant standardization; providing resources for essential safety

research; managing agency resources more effectively and efficiently; and consolidating NRC headquarters' offices.

The NRC budget request for FY 1988 is for \$427.8 million and 3250 full time equivalent (FTE) staff. Our FY 1989 budget estimate is \$422.6 million and 3,180 FTE. This budget shows our plan to reduce FTE allocations by about 10 percent from the FY 1986 level. It also reflects essentially the same funding level as we have in FY 1987 plus a small increase primarily needed for essential safety research, oversight for the increasing number of operating reactors, and the materials inspection program. It also provides funds for consolidating the majority of our Washington, D.C., headquarters staff into one building located in Rockville, Maryland.

This is a straightforward, responsible budget -- one that we believe contains the resources needed to fulfill our responsibilities. The Commission recognizes and is supportive of the need for budget austerity, and we have initiated actions to become more productive and to reduce resources. My fellow Commissioners and I strongly urge that you provide us with the resources we need to meet our regulatory responsibilities.

Two specific examples of our efforts to become more productive and efficient in use of the public's resources are building consolidation and reorganization.

We are finally able to begin consolidating our headquarters' offices after more than 10 years of operations dispersed among ten different buildings

around the Washington, DC area. The General Services Administration has purchased an 18-story office building and signed an agreement to lease space in an adjacent building, scheduled for construction within about three years. This will permit full headquarters consolidation in Rockville. We have worked diligently on this endeavor and are committed to its success.

The Congress has repeatedly supported our efforts to consolidate our headquarters employees. We believe the benefits the agency will derive from consolidation, in terms of increased efficiency and effectiveness, will be permanent and will have a positive effect on our ability to protect the public health and safety.

Additionally, I have initiated, with Commission support, a major agency reorganization. The reorganization will comply with current statutes. No legislation is necessary. The purpose of the reorganization is to better accommodate the changed nature of the agency's responsibilities and workload through a more effective and efficient organizational structure. The responsibilities of the Nuclear Regulatory Commission have shifted from evaluation of construction permit and operating license applications to the regulation of a maturing operational industry. For example, in 1975, when the NRC was formed, there were 53 plants licensed to operate, 63 plants under construction and 75 applications for construction permits under review. Today, there are 108 plants licensed to operate, 17 plants under construction and no applications for construction permits. As the plants presently being built are completed, the NRC will have progressively less

regulatory involvement with large complex construction activities and considerably more involvement with plant operations, maintenance, life extension and similar issues. Up to this point, however, the structure of the agency has not evolved to reflect this shift in responsibilities, and the need for both different and differently deployed resources. Our current reorganization initiative is an attempt to more properly reflect our responsibilities as we see them today and into the 1990's.

The reorganization became effective on April 12, 1987. The Commission expects that some reprogramming may be necessary as a result of the reorganization for FY 1987, but this would be accomplished within the resource level authorized by the Congress. For fiscal years 1988 and 1989, the Commission will be submitting revised budget information which reflects the reorganization. As is the case for FY 1987, the revisions will be accomplished within the resource levels in the current FY 1988 request.

In the new organization, the Office of Nuclear Reactor Regulation (NRR) is responsible and accountable for licensing, inspection and safeguards programs for reactors. The Office of Nuclear Material Safety and Safeguards (NMSS) has a parallel responsibility and accountability for non-reactor safety programs, including nuclear waste management.

This approach will provide the managers of our programs greater capabilities to address, analyze and resolve operational safety issues. Previously, several offices might have been involved with a single

operational safety issue. Under the new reorganization, responsibility, authority and accountability will be more focused.

We have also established a new Office of Special Projects, reporting directly to the Executive Director for Operations. The new office is responsible for managing all aspects of the NRC's licensing and inspection efforts for nuclear power plants owned by the Tennessee Valley Authority and for the Comanche Peak Nuclear Power Plants. This special office will be maintained until these projects can once again be handled within the normal organizational framework of our Nuclear Reactor Regulation and Regional offices.

Under the new organization, the Office of International Programs and the Office of State Programs became Commission-level offices rather than staff offices. This action reflects the importance that the Commission assigns to enhanced communications internationally and with states, local communities and Indian tribes. They report to the Commission through the new Office of Governmental and Public Affairs. Additionally, the new office includes the functions of the present Office of Public Affairs and the Office of Congressional Affairs.

Another feature of the reorganization is to increase the responsibilities of the Office of Nuclear Regulatory Research. The Office of Nuclear Regulatory Research is now responsible for resolution of generic safety issues, including unresolved safety issues, and for the review of full-scope probabilistic risk assessments. These assignments are intended

to bring about a closer tie between research and other agency safety programs. The recommendations of the recent National Academy of Sciences' report are under review by the Commission. We anticipate taking actions in response to the recommendations in the near future.

The NRC research program is needed to provide us with sound technical information that we must have to deal effectively with complex technical issues. Between fiscal years 1981 and 1987, research funds have been reduced by more than 50 percent. The completion of large research projects and joint programs with other parties have helped mitigate the effect of these reductions. However, the Commission is concerned that our capability to deal with future nuclear power plant problems will be greatly impaired by continued erosion of our research program funding. Without the safety information provided by our research program to support the resolution of complex technical issues, we could be forced to shut down some operating facilities or delay licensing others. Either situation could impose significant costs on the public and the nuclear industry.

The NRC will continue to rely on industry to conduct programs supportive of the agency's regulatory programs. Some significant examples of current industry programs include: reassessment of Babcock and Wilcox designed reactors; accreditation of training for reactor personnel; industry degraded core rulemaking review; reactor construction and operations assessments including events evaluations; readiness reviews; owner's group efforts on technical issues; plant specific probabilistic risk assessments; and centralized training of plant personnel for piping examination.

The Commission believes that it is important to increase the regulatory stability and predictability of our regulatory process. The Commission recently submitted a legislative proposal to improve the reactor licensing process. It includes provisions for early site reviews, pre-licensing approval of standardized designs, and issuance of a combined construction permit and operating license.

Additionally, NRC is acting to effect improvements in nuclear regulation where it is within our existing authority to do so. The Commission believes that the future of the industry would be best served by adoption of standardized plant designs. Standardization can bring about improvements in design, construction, operation, maintenance and training, as well as in plant performance and management. Standardization should take into account the lessons the NRC has learned in almost three decades of development of commercial nuclear power. It could improve both licensing schedules and plant operational safety. Although we believe that legislation would be highly desirable, the Commission is developing a policy statement which will emphasize the Commission's expectations that future reactor designs be standardized.

The appendix to our testimony summarizes the agency's budget request by major budget categories. I will briefly summarize each program.

Program SummaryReactor Regulation

The overall resources for our reactor regulatory program will be about the same in FY 1988 as they are in FY 1987. However, the mix of in-house staff and technical assistance funding will change, and there will be some adjustments within the program as the nature of the workload shifts from license reviews to maintaining operating nuclear power plants.

We are providing for a higher level of review of some plants identified as needing increased regulatory attention and evaluations of unanticipated reactor events. These activities have required significant agency resources and management attention. For example, our efforts related to TVA plants and Comanche Peak, as well as evaluating operational events, will continue to require application of our staff and contractor resources to review safety and licensee management issues.

We will continue to conduct an active reactor operator license examination program, resolve safety issues, implement policies on severe accidents and safety goals, and review advanced reactor concepts now being evaluated by the Department of Energy.

Nuclear Material Safety and Safeguards

The Nuclear Material Safety and Safeguards programs have been adjusted in response to the additional responsibilities assigned to the NRC by the Low Level Radioactive Waste Policy Act of 1980, as amended in 1985, and the Nuclear Waste Policy Act of 1982. Most importantly, NRC must: ensure that appropriate regulations exist for both NRC and state licensing of low-level waste disposal sites; be prepared to provide technical assistance to states in reaching decisions on such disposal sites; and be prepared to license both a monitored retrievable storage facility, if authorized by Congress, and the high level waste repository.

Other essential efforts in FY 1988 include the completion of licensing reviews for several thousand byproduct, source and special nuclear material licensees, and the conduct of a comprehensive safeguards program designed to protect against risks from theft, diversion or sabotage, at licensed facilities and during transport of nuclear materials.

Funding for our Nuclear Material Safety and Safeguards program will be about the same in FY 1988 as it is in FY 1987.

Inspection and Enforcement

The Inspection and Enforcement Program will continue to emphasize on-site inspection of reactors. At least two resident inspectors are assigned to

almost all reactor sites. This means that about 160 NRC personnel are stationed on-site to observe, evaluate and report on the adequacy of licensee nuclear safety activities on a day-to-day basis. Their efforts are augmented by region-based inspectors and technical contractors who conduct a variety of highly specialized inspections designed to achieve an indepth perspective on licensee power plant safety.

Management has been concentrating on improving the effectiveness and efficiency of the reactor inspection effort. Programs are being developed to improve the methods and information used to focus inspection attention on particular plants and systems which are most prone to problems and on new inspection approaches. Event assessments, inspection appraisals, operational data, probability risk assessments and performance indicators will be used to determine where resources are most needed. Additional diagnostic team inspections will examine the functioning of components and systems. In addition, the safety impact of major plant modifications will be conducted to evaluate performance and require safety improvements where needed.

Finally, the Commission has not neglected its inspection program for the approximately 9,000 materials licensees. It is in the area in which the average citizen is most likely to come in contact with licensed nuclear materials. The proposed budget provides additional resources to improve the oversight of NRC's materials licensees.

All of the above functions and responsibilities will be carried over to the new organization. Inspection responsibilities will be assigned to NRR and NMSS. Enforcement responsibilities will be assigned to a new office reporting to a Deputy Executive Director for Operations.

Research

In FY 1988, the major emphasis of the NRC research program will continue to be the early identification and resolution of operational safety issues. Examples of these operational safety issues are corrosion in piping and vessels, radiation embrittlement of reactor vessels, defective valves and relays in safety systems, inadequate means for detecting and characterizing flaws in critical components, steam generator degradation in pressurized water reactors, cracked piping in boiling water reactors, temporary loss of feedwater at pressurized water reactors, and power loss to integrated control systems.

As a result of the accident at Three Mile Island, our research program now includes important efforts on severe accidents and on assessment of risks resulting from such accidents. The severe accident research is focused on: assessing various accident sequences and the core damage which can result from inadequate core cooling; considering methods for restoring adequate core cooling; examining the response of reactor containment to loads from severe accidents; and analyzing the release and transport of radioactive material during serious reactor accidents.

The risk assessment effort has centered on the study of six plants in the Reactor Risk Reference Document (NUREG-1150). The purpose of this effort is to provide a quantitative risk basis for NRC's evaluation of plant safety performance. The NUREG-1150 draft document has been issued for comment, and a final version will be published in about a year. The methods developed and results reported in NUREG-1150 will be used in the Independent Plant Evaluation (IPE) program to examine and identify accident sequences or events which could significantly affect the safety of U.S. operating nuclear plants. We expect that the IPE effort should be completed in the next 2 years.

Our research program is providing the technical information to resolve many other operational safety questions. This includes the evaluation of: aging of reactor equipment such as piping, valves, relays and steam generators; degraded materials due to corrosion, radiation embrittlement and fatigue; inservice inspection methods to detect flaws and cracks in pipes; and earthquake hazards and their effects on operating plants.

The NRC research efforts planned for FY 1988 will also contribute to the technical basis the NRC needs to evaluate independently the adequacy of programs and information being developed by the Department of Energy necessary to license geologic repositories for the disposal of high-level radioactive waste.

The small funding increase for our research program will provide resources for: the construction, testing and initial operations of the thermal

hydraulic test facilities which will provide information on which to base future regulatory actions; selective experimentation and testing of various aspects of a high-level waste repository to validate performance assessment models to be used in the regulatory process and in licensing evaluation; and evaluations of alternatives to the presently used shallow land burial for disposal of low-level waste.

The Commission believes it mutually beneficial to expand, as practicable, the cooperative efforts between the NRC and the various industry organizations involved in nuclear safety research -- EPRI, Owner's Groups, vendors and other government agencies performing related work. Where cooperation is appropriate, we believe our efforts will have a broader level of exposure, potentially better peer review and a greater level of acceptance. Also by spreading costs, cooperative research can be done in a more cost-efficient way.

The Office of Nuclear Regulatory Research also has numerous bilateral and multilateral agreements which include most of the free world foreign countries involved in nuclear safety research. In many cases, these agreements result in an influx of money from those countries to our programs as well as a beneficial exchange of information on nuclear safety issues.

Conclusion

The details of our budget request are contained in our submission, which has already been provided to the Subcommittee.

In closing, we want to reemphasize the Commission's belief that our FY 1988 budget request is a straightforward and responsible budget. It contains the resources that we believe are necessary for us to meet our regulatory responsibilities for protection of public health and safety in the civilian use of nuclear materials. We urge your strong support for the full amount of our request.

Our responses to the questions included in your letter of invitation are being submitted with the prepared testimony.

BUDGET RESOURCE SUMMARY^{1/}

<u>PROGRAMS</u>	<u>FY 1987</u>		<u>FY 1988</u>		<u>FY 1989</u>	
	<u>FTE</u>	<u>\$</u>	<u>FTE</u>	<u>\$</u>	<u>FTE</u>	<u>\$</u>
Nuclear Reactor Regulation	686	80.8	655	83.5	635	81.0
Nuclear Mat'l Safety and Safeguards	363	40.4	344	41.2	337	40.0
Inspection and Enforcement	1,136	100.6	1,114	104.9	1,088	98.9
Nuclear Regulatory Research	180	111.7	172	119.7	172	125.3
Program Technical Support	357	33.7	334	34.1	323	33.7
Program Direction and Admin.	<u>647</u>	<u>43.1</u>	<u>631</u>	<u>44.4</u>	<u>625</u>	<u>43.7</u>
	3,369	410.3	3,250	427.8	3,180	422.6

^{1/} Dollars are expressed in millions.

STATEMENT OF COMMISSIONER JAMES K. ASSELSTINE
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
MAY 6, 1987

Mr. Chairman, your letter inviting the Commission to testify today included a rather lengthy list of issues you wanted the Commission to address. Rather than trying to comment on each of those issues, I would like to focus on one -- the Commission's proposed change to the emergency planning rule.

It is no secret by now that I do not support the Commission's proposed modification of the NRC's emergency planning regulations. In my opinion, that proposal is bad policy. It would permit licensing of a nuclear power plant in cases where there has been no participation by state and local governments in the emergency planning process. This approach would abandon the central elements of emergency planning and would, therefore, provide less effective protection of the public in the event of an accident than that required by the present rules. And, the only reason advanced by the Commission for permitting less effective emergency planning is the adverse economic consequences to the utilities of not licensing plants where the governments have refused to participate. In my view, these economic consequences cannot provide a valid basis for altering the Commission's safety regulations.

The Commission's proposed rule is fairly clear about what it does and why. The state and local governments responsible for emergency planning for two

plants have refused to submit emergency plans or to participate in utility planning. The Commission has realized that it will be very difficult, if not impossible, to license a plant under those circumstances. Where there is no participation in the process by the governments, it is difficult, if not impossible, for FEMA or the Commission to make findings that the plan meets certain of the Commission's requirements. The Commission's rule proposes to make those findings necessary under the current regulations, unnecessary.

The rule thus provides for an alternative to compliance with NRC requirements in those cases where the inability of the utility to meet the regulations is substantially the result of the failure of state and local governments to participate in the emergency planning process. The utility must submit its own plan for Commission approval. The utility must have tried to obtain governmental cooperation. The utility must have done the best it could in developing a plan and measures to compensate for lack of cooperation by government authorities given the circumstances and taking into account participation of the state and local governments in the case of an actual emergency. And, the utility must provide copies of the plan to responsible government entities.

Most recently, the Commission has been arguing that the rule is merely a procedural change, that the proposal does not substantively change the Commission's emergency planning regulations. That is simply nonsense. FEMA's comments on the Commission's proposal make this abundantly clear. As FEMA points out:

On its face, the proposed rule incorporates a fundamental change in the way that offsite emergency planning would be evaluated by FEMA if the NRC requests findings and determinations as to whether offsite emergency plans are adequate and can be implemented. Comments of FEMA on Proposed Emergency Planning Rule, April 28, 1987, p.2.

Thus, to argue that the proposed rule is simply a procedural change ignores the facts.

The Commission says, however, that the rule is supportable because they must still make an overall "reasonable assurance" finding before licensing a plant. What the Commission does not tell you, however, is that what they have done is to change, to lessen, the requirements necessary to make that finding. In other words, what the Commission has done is redefine "adequate protection of the public health and safety," to be "adequate protection of the public health and safety -- given the circumstances." The Commission decided in 1980 that the requirements of its current regulations, with state and local participation as their central element, was what was necessary to provide adequate protection. There was a provision for some flexibility to allow for compensating measures by the utility to make up for some inadequacies in state and local plans, but state and local participation remained central to effective planning. Under the proposed rule, the Commission could approve an emergency plan missing that central element. As FEMA pointed out in their comments on the proposal:

The existing regulatory scheme anticipates that there will be detailed, documented provisions in advance of an emergency for the plume exposure emergency planning zone (10 miles out from the plant)

and that ad hoc responses will be undertaken as necessary to supplement preplanned actions. This proposed rule would, in effect, sanction extensive across-the-board ad hoc responses. p.3.

The current Memorandum of Understanding between FEMA and the NRC charges FEMA with evaluating offsite emergency response plans against the criteria set out in the jointly developed guidance document, NUREG 0654/FEMA REP 1, Rev. 1. This guidance document assumes that there will be extensive involvement of state and local governments in the development and implementation of these plans. Without such involvement, many of the evaluation criteria cannot be satisfied.

Thus, there is a substantive difference between the requirements of the present emergency planning rule and the proposed rule. And, the difference is that the proposal provides for less effective protection of the public health and safety.

Central to the Commission's justification for this rule is the "realism" argument -- i.e., that in the event of an emergency, the state and local governments will in fact participate in an emergency and will use the utility's plan. There are two problems with this assumption. First, there is no evidence to support the Commission's conclusion. Second, even if we accept the Commission's assumption, an ad hoc response by the responsible government officials is simply inconsistent with the fundamental precepts of emergency planning and clearly cannot provide the same level of protection as a plan with full cooperation would. An ad hoc response means that there will be no preplanning by the governments. Officials will be forced either to improvise during an accident (something which we know did not work at TMI) or to attempt to carry out a plan with which they are not familiar and which they believe to be inadequate. They will not have been trained in the elements of the plan or their responsibilities, and they

certainly will not have rehearsed their roles. Training and rehearsal are essential, and the Commission's regulations recognize this. If a particular government has not participated in advance planning, these fundamental preparatory steps will not have been taken, and the governmental response will be less effective.

Further, an off-the-cuff emergency response like that approved by the Commission in this rule is unlikely to engender the public confidence necessary to ensure that the plan works adequately. This point is worth emphasizing. An effective emergency response depends upon public cooperation, and that cooperation depends in turn on public confidence in the adequacy of the emergency plan and the preparedness of those who must carry out that plan. The public is hardly likely to have confidence in a plan which their elected state and local officials have declared inadequate. Nor are they likely to place their trust in people who are unfamiliar with the plan and who are untrained and unrehearsed in their emergency response roles. The result in such circumstances could well be an ad hoc response by most of the people within the 10-mile Emergency Planning Zone and perhaps even beyond.

Finally, the proposed rule does not require the Commission to find that reliance only on a utility plan with no state and local participation would provide a level of protection to the public which is equivalent to an emergency preparedness plan with full cooperation. Under this proposal, whether there is adequate protection will be determined based on what the utility can reasonably accomplish given the lack of government cooperation.

This means that a plant may be licensed with the core of emergency planning missing, with a less coordinated response than would normally be possible, and where some protective actions might no longer be available.

I commend to your reading FEMA's comments on the proposed rule which raise these same concerns. I would particularly draw your attention to FEMA's conclusion that holding exercises of the plans without state and local participation would "increase the risk to the population of the affected emergency planning zones." p.3. But, you need not go outside of the Commission's proposed rule itself for support for the conclusion that this rule would provide less protection to the public than the current rule. The safety analysis prepared by the NRC staff, which accompanies the proposal, reaches the same conclusion.

The Commission cites no new safety information to support this lessening of the requirement. In fact the Commission states that the rule is not based on any source term or severe accident research. The Commission states specifically that the rule change is not based on any finding that plants are safer now than they were in 1980 when the present emergency planning rules were issued and when planning was considered to be of primary importance to public protection. The Commission does not dispute its 1980 conclusion that state and local participation is the core of emergency planning and response. In fact the Commission admits the obvious -- that an emergency response with governmental participation is better than one without. The Commission's only justification for this rule change is

adverse economic consequences. The Commission should not weaken its safety regulations simply because they have become expensive to implement.

Thank you.

QUESTION 1. Please discuss in detail the budget request for fiscal years 1988 and 1989. How do these figures compare to the amounts actually appropriated in fiscal years 1986 and 1987?

ANSWER.

Attached is a detailed summary of NRC's FY 1988 and FY 1989 budget request. Some comparative figures for FY 1986 and 1987 are included.

Enclosure:

Detailed Summary

5/6/87 BREAUX Q1

U. S. NUCLEAR REGULATORY COMMISSION
SUMMARY OF PROGRAM DOLLARS AND STAFF
(Dollars in Millions, Staff in FTE's)

PROGRAM	FY 1986		ESTIMATE			
	DOLLARS	FTE'S	FY 1987		FY 1988	
			DOLLARS	FTE'S	DOLLARS	FTE'S
NUCLEAR REACTOR REGULATION	\$ 79.8	697	\$ 80.8	686	\$ 83.5	655
NUCLEAR MATERIAL SAFETY AND SAFEGUARDS	38.5	355	40.4	363	41.2	344
INSPECTION AND ENFORCEMENT	94.4	1,131	100.6	1,136	104.9	1,114
NUCLEAR REGULATORY RESEARCH	123.8	198	111.7	180	119.7	172
PROGRAM TECHNICAL SUPPORT	31.3	375	33.7	357	34.1	334
PROGRAM DIRECTION AND ADMINISTRATION	42.1	689	43.1	647	44.4	631
TOTAL	\$409.9 ^{a/}	3,445	\$410.3 ^{b/}	3,369	\$427.8	3,250
					\$422.6	3,180

a/ Represents funds obligated. NRC had \$419.2 million available to obligate in FY 1986 which included an FY 1986 appropriation of \$400 million (subsequent to an \$18 million reduction resulting from the Balance Budget and Emergency Deficit Control Act of 1985) plus \$19.2 million from prior year carryover and recovery of prior year deobligations. The \$9.3 million remaining unobligated at the end of FY 1986 was carried into FY 1987.

b/ Represents available obligational authority which includes an FY 1987 appropriation of \$401 million plus \$9.3 million of prior year carryover.

U. S. NUCLEAR REGULATORY COMMISSION
SUMMARY OF BUDGET BY FUNCTION
(Dollars in Millions)

<u>FUNCTION</u>	<u>FY 1986 Actual</u>	<u>FY 1987 Estimate</u>	<u>FY 1988 Estimate</u>	<u>FY 1989 Estimate</u>
Salaries and Benefits	171.9	175.9	176.8	183.2
Program Support	171.4	162.1	175.1	179.4
Administrative Support	56.9	61.8	65.8	69.5
Travel	<u>9.7</u>	<u>10.5</u>	<u>10.1</u>	<u>10.5</u>
TOTAL	409.9	410.3	427.8	422.6

FY 1988/89 B. SUMMARY
Dollars in thousands, Staff in FTE's

	FY 1986	FY 1987 Current Estimate	FY 1988 Pres. Budget	FY 1989 Pres. Budget
<u>NUCLEAR REACTOR REGULATION</u>				
Program Support (Staff)	Actual \$28,447 (697)	\$27,400 (686)	\$29,700 (655)	\$29,300 (635)
<u>OPERATING REACTORS PROGRAM</u>				
Program Support (Staff)	\$ 9,650 (306)	\$13,230 (371)	\$14,994 (362)	\$16,245 (356)

- ° Complete timely safety reviews and issue safety evaluations, including amendments to facility licenses necessitated by safety improvements or operating exigencies, for about 3000 licensing actions in FY 1987, with a slight increase in FY 1988 and FY 1989 as the number of operating reactors increase.
- ° Develop, in conjunction with licensees, priority based schedules for the completion of changes specified by new or revised NRC requirements and changes proposed by licensees.
- ° Perform overall management review of safety and environmental modifications for 101 operating reactors in FY 1986, 110 in FY 1987, 114 in FY 1988 and 117 in FY 1989
- ° Screen approximately 4,000 events per year for safety implications. About 1,000 will require further review, and of these, about 300 warrant detailed follow-up and recommended action.

SYSTEMATIC SAFETY EVALUATION
OF OPERATING REACTORS PROGRAM

Program Support (Staff)	\$ 520 (5)	\$ 300 (5)	\$ 500 (5)	\$ 500 (5)
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- ° Complete two plant pilot Integrated Safety Assessment Program (ISAP) in FY 1987. Planned Follow-on ISAP program, to extend the program to other plants, will be based on our evaluation of pilot program which will be completed in FY 1987.

NUCLEAR FOR REGULATION (CONTINUED)

OPERATOR LICENSING PROGRAM

Program Support (Staff) \$ 3,275 (66) \$ 2,305 (77) \$ 2,760 (81) \$ 2,120 (82)

° Administer initial, replacement and requalification examinations to reactor operators. This includes the following number of examinations: 190 initial, 1,325 replacement, and 460 requalifications and 90 non-power reactors in FY 1988, 50 initial, 1,230 replacement, and 460 requalifications, and 90 non-power reactors in FY 1989.

LICENSE REVIEWS PROGRAM

Program Support (Staff) FY 1986 Actual \$ 7,479 (138) FY 1987 Current Estimate \$ 4,460 (86) FY 1988 Pres. Budget \$ 3,688 (67) FY 1989 Pres. Budget \$ 3,627 (67)

° Conduct reactor operating license reviews on a schedule that will not unnecessarily impact reactor startup and operation.

° Decisions are expected on operating licenses for nine power reactors in FY 1987, four in FY 1988 and three in FY 1989.

° Conduct reviews for: EPRI standard plant design criteria and for GE, Westinghouse and Combustion Engineering designs.

° Conduct reviews for non-power license applications, license renewals and license amendments and safety reviews of certain DOD/DOE projects.

NUCLEAR REACTOR REGULATION (CONTINUED)

SAFETY TECHNOLOGY PROGRAM

Program Support
(Staff)

\$ 7,353
(133)

\$ 6,885
(99)

\$ 7,708
(97)

\$ 6,808
(87)

Resolve Safety Issues

USIs

o Complete two existing Unresolved Safety Issues (USI's) in FY 1988 and 1 in FY 1989.

FY 1988

A40 Seismic Design Criteria
A47 Safety Implications of Control Systems

FY 1989

A45 Shutdown Decay Heat Removal Requirements

GSIs

o Technical resolution of 21 generic safety issues is expected in FY 1987, 19 in FY 1988, and 14 in FY 1989.

Human Factors Issues

o Develop technical basis for regulatory positions, guidance, and regulations on human factors issues related to the design, operation, and maintenance of nuclear power reactors. These issues include training, staffing and qualifications, licensing examinations, and maintenance.

o For FY 1987, four human factors issues are scheduled for completion, with one in FY 1988 and one in FY 1989.

NUCLEAR REACTOR REGULATION (CONTINUED)SAFETY TECHNOLOGY PROGRAM (CONTINUED)Regulatory Improvements

- Continue the 4-year program for implementing the Severe Accident Policy Statement initiated FY 1986.
- Develop systematic implementation approach for the Commission's Safety Goal in FY 1987. After a one year trial implementation, a Final Safety Goal will be proposed to the Commission.
- Improve technical specifications regulations and standards.

Advanced Reactors

- Interaction, coordination and review of DOE's program to develop, in conjunction with industry, potential advanced reactor concepts. Plan to review one High Temperature Gas Reactor (HTGR) and two Liquid Metal Reactors (LMR) concepts, culminating in the review of one application in FY 1989.

	FY 1986			FY 1987		FY 1988		FY 1989	
	Actual			Current Estimate		Pres. Budget		Pres. Budget	
TMI-2 CLEANUP PROGRAM									
Program Support (Staff)	\$ 0	\$ 170	\$ 220	\$ 220	\$ 50	\$ 0	\$ 0	\$ 0	\$ 0
	(41)	(8)	(7)	(7)	(3)				

- Provide for onsite oversight of the TMI-2 Cleanup operations through FY 1988. After FY 1988, regulatory oversight will be maintained through routine inspections and licensing programs.

	FY 1986			FY 1987		FY 1988		FY 1989	
	Actual			Current Estimate		Pres. Budget		Pres. Budget	
MANAGEMENT DIRECTION AND SUPPORT									
Program Support (Staff)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	(41)	(41)	(41)	(41)	(40)	(40)	(39)		

- Provide for the overall policy guidance and management direction of the Nuclear Reactor Regulation Programs by the Office Director and Regional Administrators.

FY 1988 - 1989 BUDGET SUMMARY
(Dollars in Thousands, Staff in FTE's)

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS	FY 1986		FY 1987		FY 1988		FY 1989	
	Actual		Current Estimate		Pres. Budget		Pres. Budget	
Program Support (Staff)	\$ 14,521 (355)		\$ 14,500 (363)		\$ 15,000 (344)		\$ 14,500 (337)	

FUEL CYCLE FACILITY AND NUCLEAR MATERIAL SAFETY

Program Support
(Staff)

\$ 3,071 (98) \$ 2,275 (105) \$ 2,400 (99) \$ 2,650 (97)

Fuel Cycle Facility and Nuclear Materials Licensing

- ° Complete review of approximately 6,100 byproduct, source and special nuclear material applications (new licenses, license amendments, license renewals, and sealed sources and devices) in FY 1987 and 5,900 applications per year in FY 1988 and FY 1989.

General Licenses

- ° Continue the study of generally licensed products (light sources, gas chromatographs, x-ray fluorescence units, and static eliminators) in FY 1987 to determine whether regulations should be revised. Revise regulations as required in FY 1988 and FY 1989.

Licensing of Monitored Retrievable Storage Facility

- ° In support of MPA, review topical reports on specific design features for monitored retrievable storage (MRS), as requested by DOE, and continue to provide other prelicensing guidance to DOE.

Shipments of Spent Fuel and High-Level Radioactive Waste

- ° Complete approximately 110 certifications for transportation package designs per year in FY 1987 and FY 1988, and approximately 100 in FY 1989.

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (CONTINUED)

FUEL CYCLE FACILITY AND NUCLEAR MATERIAL SAFETY (CONTINUED)

Shipment of Spent Fuel and High-Level Radioactive Waste

- In support of NMPA, provide technical guidance to DOE, the Department of Transportation (DOT), the States, and industry on safety and environmental policies and regulations for the shipment of spent fuel and high-level radioactive waste.

Dry Storage of Spent Fuel

- Review applications for site-specific interim storage of spent fuel outside of reactor pools.
- Continue review work on evaluation of topical reports for dry storage cask designs.
- As required by NMPA, continue rulemaking on generic approvals for the use of dry spent fuel storage casks.

Demonstration of High-Level Waste Solidification

- As required by the West Valley Demonstration Project Act, continue consultation with DOE regarding the planning and safety analyses for the West Valley, New York project for the solidification of high-level radioactive waste.

Management of Low-Level Waste Prior to Ultimate Disposal

- Continue work on potential rule changes and preparation of licensing guides for acceptable LLW storage and treatment options. Options include combinations of additional on-site storage, volume reduction, and centralized storage, many of which will require amendments to existing licenses.

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (CONTINUED)

SAFEGUARDS

Program Support (Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 3,470 (78)	\$ 2,725 (81)	\$ 2,595 (76)	\$ 2,595 (75)

Reviews of Safeguards at Operating Reactors

- Complete approximately 18 regulatory effectiveness reviews (RER) in FY 1987 and 14 RERs peryear in FY 1988 and FY 1989.

Safeguards of Licensed Facilities and Transportation

- Complete approximately 700 licensing reviews (i.e., technical evaluations or revisions of safeguards plans for power reactors, nonpower reactors, fuel cycle facilities, the transport of nuclear materials, and the export of nuclear materials) in FY 1987, 680 in FY 1988, and 650 in FY 1989.

Safeguards Support of the Nuclear Waste Policy Act

- Review the safeguards aspects of the NWS as proposed by the DOE and authorized by the Congress and provide preclicensing guidance consistent with DOE schedules.
- As required by NWSA, continue development work on safeguards requirements for generic licensing of dry cask spent fuel storage.

IAEA Safeguards Program Participation

- Consistent with the objectives of Title II of the Nuclear Nonproliferation Act, continue participation in the Interagency Action Plan Working Group to strengthen IAEA safeguards and support the U.S. program to provide technical assistance to IAEA.
- Complete documentation of facility descriptions and the formal specific arrangements for implementing IAEA safeguards at selected U.S. facilities; compile and report to IAEA nuclear materials transaction and inventory data; and assist IAEA inspection activities at selected U.S. facilities.

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (CONTINUED)

HIGH-LEVEL WASTE MANAGEMENT

Program Support
(Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	<u>Actual</u>	<u>Current Estimate</u>	<u>Pres. Budget</u>	<u>Pres. Budget</u>
	\$ 5,835 (86)	\$ 6,600 (94)	\$ 7,435 (86)	\$ 7,435 (86)

- Principal responsibility in the high-level waste program is to license the high-level waste repository providing that an independent NRC determination shows that the proposed repository's expected performance meets regulatory requirements and is adequate to protect the public health and safety and the environment.

Regulatory Guidance

- Prepare and provide regulatory guidance to DOE. Such guidance includes the NRC's regulations, regulatory guides and staff generic technical positions.
- Continue development of system performance assessment models and computer codes.
- Attempt to identify potential approaches and develop plans for streamlining the licensing process to ensure that the three-year licensing review time mandated by the NPPA can be met.

Prelicensing Consultation

- Maintain close interaction with DOE, the states, affected Indian Tribes, the technical community and other interested members of the public to identify and begin the resolution of licensing issues as early as possible.
- Continue extensive prelicensing reviews of DOE's generic and site-specific investigations.

Review of Site Characterization Plans

- Review DOE's site characterization plans for three potential sites for the first repository during FY 1987 - FY 1988. Continue to review updates of the site characterization plans until a site is selected.

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (CONTINUED)

LOW-LEVEL WASTE MANAGEMENT AND URANIUM RECOVERY

Program Support
(Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 2,145 (56)	\$ 2,800 (56)	\$ 2,470 (54)	\$ 1,720 (52)

Disposal of Low-Level Radioactive Waste

- Continue to exercise NRC responsibilities under the Low-Level Radioactive Waste Policy Amendments Act of 1985: defining low-level wastes; licensing the Federal disposal of commercial low-level waste greater than Class C; granting emergency access to regional disposal facilities; providing regulatory guidance on alternative disposal methods; reducing the license review time; and establishing regulatory standards for wastes below regulatory concerns.
- Continue to develop regulatory guidance for requirements pertaining to waste form and packaging, waste classification, siting, monitoring and closure.
- Continue working with the Environmental Protection Agency (EPA) on exploring approaches to disposal of wastes containing both radioactive and other hazardous constituents.
- Publish proposed rule in FY 1987 and develop a final rule in FY 1988 to establish financial arrangements for long-term care of disposal sites.
- Develop criteria for evaluating requests for transfer of sites to the jurisdiction of the Federal Government.

NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (CONTINUED)

LOW-LEVEL WASTE MANAGEMENT AND URANIUM RECOVERY (CONTINUED)

Licensing Uranium Recovery Facilities

- Complete approximately 80 licensing reviews per year in FY 1987, FY 1988 and FY 1989.
- Review approximately 100 licensee monitoring and agency inspection reports per year.
- Publish final rule in FY 1987 to conform 10 CFR 40 to final EPA standards.

Uranium Mill Tailings Remedial Action Program

- Review and approve DOE remedial action plans for the disposal of mill tailings for inactive mills. The remedial actions will be taken by DOE at 24 mill tailings sites and several thousand associated vicinity properties. The greatest NRC involvement is expected during 1986-1990.

Technical Assistance To States

- With respect to low-level waste, provide licensing technical assistance to the sited States of Nevada, South Carolina and Washington. Provide technical assistance to several nonsited host states and the Compacts, to ensure that the requirements of the LLRWPA are met.
- With regard to uranium recovery, provide technical assistance to Agreement States upon request on specific technical licensing matters.

MANAGEMENT DIRECTION AND SUPPORT

Program Support (Staff)

- Provides for overall policy guidance and management direction of the Nuclear Materials Safety and Safeguards Programs by the Office Director and the Regional Administrators.

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 0 (27)	\$ 100 (27)	\$ 100 (27)	\$ 100 (25)

FY 1988 - 1989 . T SUMMARY
(Dollars in Thousands, Staff in FTE's)

	FY 1986		FY 1987		FY 1988		FY 1989	
	Actual		Current Estimate		Pres. Budget		Pres. Budget	
<u>INSPECTION AND ENFORCEMENT</u>								
Program Support ^a (Staff)	\$15,915 (1,131)		\$16,001 (1,136)		\$18,300 (1,114)		\$16,900 (1,088)	
<u>REACTOR INSPECTIONS PROGRAM</u>								
Program Support (Staff)	\$ 5,311 (670)		\$ 5,725 (682)		\$ 6,115 (674)		\$ 5,575 (657)	

Workload

- ° At end-of-year, 3 reactors will remain under construction in FY 1987/FY 1988 and 2 in FY 1989. 7 reactors will be in preoperational testing at the end FY 1987, 3 at the end of FY 1988 and 1 at the end of FY 1989.
- ° 110 reactors will be licensed at the end of FY 1987, 114 at the end of FY 1988 and 117 at the end of FY 1989.

Resident Inspectors

- ° Resident inspectors provide an on-site inspection presence. They concentrate on daily licensee operations and personnel performance; event followup; coordination of agency on-site activities; and serving as liaison between the agency and local officials, press and public.
- ° 2 resident inspectors are assigned to each active construction site. (5 active sites in FY 1987, 2 in FY 1988 and 1 in FY 1989.
- ° Each plant in preoperational testing has 4 resident inspectors, two construction and two operations.
- ° 2 residents are assigned to all multi-unit operating sites. In FY 1988 the assignment of a second resident to almost all single unit operating sites will be completed.
- ° There are approximately 160 resident inspectors each year in FY 1987-1989.

Region Based Specialists

- ° Conduct specialized technical inspections in such areas as civil, mechanical and electrical engineering; instrumentation; welding; NDE; quality assurance; plant operations; systems surveillance; maintenance; modifications; inservice inspection; fire protection; training; refueling; radiation protection, emergency planning; environmental protection; management systems; security; and safeguards.

INSPECT AND ENFORCEMENT (CONTINUED)REACTOR INSPECTIONS PROGRAM (CONTINUED)Region Based Specialists (continued)

- ° Contracts provide highly specialized technical assistance including environmental monitoring at reactor sites and independent confirmatory measurements.

Safety Systems Functionality Inspections (SSFI) and Safety System Outage Modification Inspections (SSOMI)

- ° New inspection approaches which address the functionality of reactor systems and components by a team of specialists including both operations and design personnel.
- ° A SSFI is an indepth engineering review of the design, configuration, maintenance, testing and operation of systems, their components and their supporting systems.
- ° A SSOMI is oriented to the safety impact of modifications made to several systems during a reactor outage including: alteration of original design considerations and safety margins; quality of the modified systems as-built; and adequacy of full functional testing on the modified system.
- ° Approximately six inspections will be performed in FY 1987 and 10-15 in each of FYs 1988-1989.

Systematic Assessment of Licensee Performance

- ° Periodically evaluates the overall performance of a licensee in several areas (e.g., management involvement in assuring quality, enforcement history, and reporting and analysis of events). Emphasis is placed on understanding the reasons for licensee performance, sharing the understanding with the licensee, and then focusing agency inspections accordingly.

VENDOR AND QUALITY ASSURANCE PROGRAMProgram Support (Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 1,314 (53)	\$ 1,455 (49)	\$ 1,635 (46)	\$ 1,235 (42)

Vendor Program

- ° Conduct approximately 120 vendor inspections each year in FYs 1987-1989. These inspections focus on operating reactor safety issues, assess the potential generic implications of vendor deficiencies and emphasize licensee responsibilities for their vendor supplier.

INSPECT, AND ENFORCEMENT (CONTINUED)VENDOR AND QUALITY ASSURANCE PROGRAM (CONTINUED)Vendor Program (continued)

- Contractor assistance funds provide the capability to hire experts in specialized areas permitting the agency to conduct more detailed technical inspections at vendor facilities.

Quality Assurance Program

- Implement the quality assurance improvements identified in the report to Congress on QA: (a) reduction of prescriptiveness with greater emphasis on quality program performance and end products; (b) reduction in attempting to inspect quality into a plant and place responsibility on licensee; and (c) introduction of methods to resolve quality assurance contentions earlier in the licensing process. Revisions to the quality assurance inspection program will be completed in FY 1988.
- Provide support to NMSS's review and oversight of DOE quality assurance programs for site characterization activities.

ENFORCEMENT, TECHNICAL SUPPORT,
INCIDENT RESPONSE AND LICENSING PROGRAMProgram Support
(Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 6,103 (157)	\$ 5,315 (143)	\$ 6,330 (136)	\$ 5,800 (133)

Enforcement

- Notices of violations, civil penalties and orders are issued to assure safety and compliance with regulations and license conditions.

Licensee Event Analysis, Generic Communications and Performance Indicators

- Analyze approximately 10,000 licensee event reports annually to identify problems.
- Issue approximately 100 bulletins and information notices regarding problem areas annually.
- Analyze indicators of individual plant safety and regulatory performance for trends. Results are input into a management decision process to determine what MRC actions are appropriate in response to lagging performance.

INSPEC. AND ENFORCEMENT (CONTINUED)ENFORCEMENT, TECHNICAL SUPPORT, AND INCIDENT RESPONSE PROGRAM (CONTINUED)Incident Response Program

- ° Upgrade systems and programs for supporting reactor safety assessment, protective measures, information management, response training and communication of information.
- ° Improve communications during an emergency using data already available in licensee emergency response facilities (e.g., safety parameter display systems).

Emergency Preparedness Reviews

- ° Review and evaluate onsite emergency plans and procedures to provide input for Safety Evaluation Reports on applicants' emergency preparedness capabilities.
- ° Review modifications to emergency preparedness plans for existing licensees.
- ° Coordinate with FEMA on findings and determinations resulting from their review of offsite emergency preparedness.

FUEL CYCLE AND MATERIALS
INSPECTIONS PROGRAMProgram Support
(Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
	\$ 913 (85)	\$ 985 (92)	\$ 1,525 (91)	\$ 1,525 (91)

Fuel Facilities Inspections

- ° Conduct health and safety inspections at 68 fuel facilities each year in FYs 1987-1989.
- ° Physical security, emergency preparedness and material control and accounting inspections will be performed at 11 fuel facilities which currently process enriched uranium.

INSPECT. AND ENFORCEMENT (CONTINUED)FUEL CYCLE AND MATERIALS INSPECTIONS PROGRAM (CONTINUED)Material Inspections

- ° Conduct about 2,600 onsite radiological safety inspections of materials licensees each year in FYs 1987-1989.
- ° Evaluate and follow up on licensee reported incidents and medical misadministrations.

Decommissioning and Closeout Radiation Surveys

- ° Conduct independent radiation surveys to ascertain whether the licensee has successfully decontaminated its property so that it can be released for unrestricted use..

	FY 1986	FY 1987	FY 1988	FY 1989
SPECIALIZED TECHNICAL TRAINING PROGRAM		Current Estimate	Pres. Budget	Pres. Budget

Program Support (Staff)	Actual	\$ 2,521 (23)	\$ 2,695 (24)	\$ 2,765 (24)
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- ° Courses are conducted on design, technology and operation of pressurized and boiling water reactors, and in other specialized areas of reactor construction, health physics, quality assurance, and operator license examiner training.

- ° Increase required to meet higher demand for courses in engineering and inspection fundamentals and keep inspectors abreast of new developments in BWR/PWR technology, radwaste, health physics and quality assurance. Simulator usage will be increased for inspector and operator license examiner training.

	FY 1986	FY 1987	FY 1988	FY 1989
MANAGEMENT, DIRECTION AND SUPPORT PROGRAM		Current Estimate	Pres. Budget	Pres. Budget

Program Support (Staff)	Actual	\$ 0 (147)	\$ 0 (143)	\$ 0 (141)
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- ° Provides for the overall policy guidance and management direction of the Inspection and Enforcement programs by the Office Director and the Regional Administrators.

FY 1988 - 1989 GET SUMMARY
(Dollars in Thousands, Staff in FTE's)

	FY 1986		FY 1987		FY 1988		FY 1989	
	Actual		Current Estimate		Pres. Budget		Pres. Budget	
NUCLEAR REGULATORY RESEARCH								
Program Support (Staff)	\$107,397 (198)		\$ 95,800 (180)		\$103,600 (172)		\$109,500 (172)	
REACTOR SYSTEM SAFETY PROGRAM								
Program Support (Staff)	\$ 58,962 (66)		\$ 44,535 (60)		\$ 49,850 (57)		\$ 53,850 (57)	

THERMAL HYDRAULIC TRANSIENTS

Integral Facilities

- ° Complete a joint program with the nuclear industry to study small-break loss-of-coolant accidents, feedwater-line and steam-line breaks, and natural circulation for B&W type reactor plants. The joint experimental program is being performed using the Multiloop Integral System Test (MIST) facility in Ohio.
- ° Design and fabricate two additional test facilities to permit NRC to gather data on the performance of B&W safety systems under a wide range of accidents. Design will be completed for one facility which will be an improved scale integral representation of a B&W reactor system and fabrication will be completed for the second facility which will be a large scale sector of a B&W steam generator. These facilities will be constructed at Idaho National Engineering Laboratory (INEL).
- ° Obtain data from the Upper Plenum Test Facility (UPTF) in Germany and the Slab Core Test Facility (SCTF) in Japan to help resolve thermal-hydraulic regulatory issues such as: the effectiveness of upper plenum injection in Westinghouse two-loop plants, resolution, in full scale, of the concern that the emergency coolant will bypass the core and go out the break, and full scale data on mixing in the downcomer under pressurized thermal shock conditions.

NUCLEAR J-LATORY RESEARCH

THERMAL HYDRAULIC TRANSIENTS (CONTINUED)

Integral Facilities (Continued)

- o Obtain data from the Rig of Safety Assessment IV (ROSA IV) program in Japan relative to small-break loss-of-coolant accidents, feedwater-line and steam-line breaks, and overcooling and undercooling transients at a very large scale with the ability to confirm the large quantity of safety test data from the smaller Semiscale Facility.

Transient Models and Codes

- o Maintenance of the nuclear plant analyzer, which allows the staff to perform hands-on analysis of regulatory/safety incidents, will be continued in FY 1988.
- o An international code assessment and application program, established in FY 1985, will continue until FY 1990. This program consists of agreements between NRC and eleven other countries whereby the participants will provide NRC with nuclear plant start-up test data and data from their reactor test facilities in exchange for the use of NRC safety analysis computer codes.

ACCIDENT EVALUATION

Damaged Fuel

- o In FY 1987 and FY 1988 perform one test each year in the Annular Core Research Reactor (ACRR) on melt progression up to fuel-melt temperatures and studies of hydrogen generation in the dominant severe accident sequences. Analysis of the data from these experiments and the application of the new knowledge to regulation will continue in FY 1988 and FY 1989.
- o A full-length coolant boildown severe fuel damage test will be performed in the Canadian NRU test reactor in FY 1987 to provide needed data on hydrogen generation in severe accidents. This data will be analyzed and reported in FY 1988.

NUCLEAR ULTATORY RESEARCH

ACCIDENT EVALUATION (CONTINUED)

Damaged Fuel (Continued)

- Validate the melt progression (MELPROG) code and the severe core damage analysis package (SCDAP) code for use in severe fuel damage source term assessment and for benchmarking simplified severe accident safety analysis codes.

Containment Loading

- By early FY 1989 complete the experimental program on key phenomena (e.g., core/concrete interaction, fission product release from the reactor cavity) that govern containment loading in severe accidents.
- Complete additional fission-product chemistry and hydrogen generation rate research to reduce unacceptably large uncertainties in the area of fission-product chemistry.

RISK AND RELIABILITY RESEARCH

Risk Methodology

- Assure consistency, accuracy, and credibility of reliability and risk analyses by performing a systematic validation and verification culminating in standardized methods and procedural guidelines for their use.

Risk Assessment

- Issue NUREG-1150 in final form. NUREG-1150 is an integrated reactor risk document that assembles and interprets the most recent information on severe accident frequencies and risk for the six reference plants.
- Complete external events analyses on three plants and a risk analysis of one Combustion Engineering and one Babcock & Wilcox designed plant during FY 1988-1989.
- Analyze available data from the Chernobyl reactor accident in FY 1987 and FY 1988 using risk methodology.

Risk Applications

- Begin production of the Plant Risk Status Information Management (PRISM) systems on the remaining five of the six reference plants analyzed in support of NUREG-1150. These will be field tested and provided to the inspection staff. A similar application of the underlying software, called M-PRISM for risk analysis of technical specifications and other licensing issues on the same plants, also will be field tested and provided to the regulatory staff.

NUCLEAR REGULATORY RESEARCHRISK AND RELIABILITY RESEARCH (CONTINUED)Risk Codes

- ° MELCOR/MACCS code will be used to provide safety analyses of important severe accident phenomenological issues of concern to the NRC. The code will address generic concerns such as equipment qualification, safety goal implementation and emergency planning.

Operational Safety Reliability

- ° Continue trial applications of reliability technology to evaluate the effectiveness of reliability engineering techniques that licensees can use to help achieve and maintain satisfactory level of safety performance. Develop improved, risk-based plant performance indicators and alert levels to strengthen NRC's monitoring of safety.

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current Estimate	Pres. Budget	Pres. Budget
ENGINEERING SAFETY PROGRAM				
Program Support (Staff)	\$ 39,453 (49)	\$ 43,110 (43)	\$ 42,350 (41)	\$ 44,250 (41)

PLANT SAFETYContainment Integrity

- ° Complete experimental and analytical efforts to determine the leak behavior under severe accident conditions for reinforced concrete containments. Also, continue tests and evaluation on the effectiveness of ice condensers in removing fission products and aerosols from the containment atmosphere.

Effects of Earthquakes on Operating Plants

- ° Continue to better determine the seismic hazards (earthquake magnitude and occurrence intervals) for nuclear power plant sites and to predict the response of the site and the plant to earthquakes within the range of magnitudes appropriate to the site, especially for the Central and Eastern United States.

NUCLEAR JULATORY RESEARCH

PLANT SAFETY (CONTINUED)

Effects of Earthquakes on Operating Plants (Continued)

- ° Continue to fund the purchase of the needed permanent earthquake recording equipment while the USGS provides personnel support for a new seismographic network in the Central and Eastern U.S.
- ° Complete large-scale experiments in cooperation with Germany and Japan to validate predictive methods for estimating the capacity of nuclear power plants to withstand earthquakes larger than that for which they were originally designed.

Equipment Qualification

- ° Complete experiments on typical isolation valves in high-energy piping to identify loading characteristics that should be considered in the qualification process for the pipe break condition. Also complete experiments on other containment isolation valves that will be used to predict their leak behavior under postulated design basis and severe accident conditions.

MATERIALS AGING

Nuclear Plant Aging Research

- ° Perform tests on naturally aged equipment and naturally aged and laboratory aged material to determine how aging degradation affects material properties and performance of safety functions.
- ° Develop a data base for independent evaluation by NRC to assess degradation processes to support regulatory decisionmaking on applications for extended operation including that beyond the current 40-year license.
- ° Determine the age-related deterioration of such equipment as pressure vessels, piping, cables, circuit breakers, valves, pumps and motors in their anticipated environment and operating service conditions.
- ° Obtain information by test and investigation of decontaminated components that had been irradiated for varying lengths of time to determine the long-term effects of decontamination on aging and on aged components which would affect safety during extended life.

Reactor Pressure Vessel Safety

- ° Complete studies of the pressurized thermal shock (PTS) accident sequence through evaluation of the influence of vessel cladding on a crack started by the PTS incident; provide the final verification of the accuracy and margins involved in the PTS Rule.

NUCLEAR RESEARCH
MATERIALS AGING (CONTINUED)

Reactor Pressure Vessel Safety (Continued)

- ° Complete tests of 4-inch thick irradiated specimens to assure that the ASME boiler pressure vessel code fracture toughness curve accurately represents the changes in property characteristics of the steels in operating light water reactors.
- ° Complete efforts to combine several fracture mechanics methods into a single, unified methodology with the addition of the part on ductile fracture.
- ° Study issues related to plant life extension to be sure that the necessary basis information is ready when NRC is faced with decisions on plant life extension applications.

Pipe Cracking and the Leak-Before-Break Principle

- ° Test piping systems under simulated seismic loading to validate the predictive methodologies currently being used to define the limits of applicability of those methodologies.
- ° Examine the effects of upsets in the nominal water chemistry on the cracking behavior of the improved materials; continue to examine the causes and degree of degradation of cast austenitic steels due to long-term thermal aging.
- ° Evaluate leak detection methods that may be useful outside containment to provide an independent assessment of these methods for use in the regulatory process.
- ° Continue the multi-disciplinary effort to investigate the material, thermal hydraulic, and design parameters responsible for erosion/corrosion of carbon steel pipe components.

Nondestructive Examination and Evaluation

- ° Evaluate techniques and procedures for the inspection of nozzles and pressure vessels using realistic components and flaws.

QUESTION 2. Please discuss the rationale for the increases or decreases in the level of funding for fiscal year 1988. In areas where programs are increased, indicate whether these budgetary increases are tied to new agency initiatives or an increase in ongoing programs. Specify what the additional funds will provide. In the programs where reductions have been made, what specific areas of the program will be reduced or eliminated and what will be the effect of these reductions on operation of the program. If there is no change in funding from last year, what changes are made in program priorities?

ANSWER.

<u>Program</u>	<u>FUNDING</u> <u>(Dollars in millions)</u>		<u>Change</u>
	<u>FY 87</u> <u>Estimate</u> ^{1/}	<u>FY 88</u> <u>Estimate</u>	
Nuclear Reactor Regulation	\$ 80.8	\$ 83.5	\$ +2.7
Nuclear Material Safety and Safeguards	40.4	41.2	+0.8
Inspection and Enforcement	100.6	104.9	+4.3
Nuclear Regulatory Research	111.7	119.7	+8.0
Program Technical Support	33.7	34.1	+0.4
Program Direction and Administration	<u>43.1</u>	<u>44.4</u>	<u>+1.3</u>
TOTAL	\$410.3	\$427.8	\$+17.5

^{1/} Represents obligational authority, which includes the NRC \$401 million appropriation for FY 1987, plus \$9.3 million prior year carryover.

QUESTION 2 (Continued)

-2-

Nuclear Reactor Regulation

The overall resources for our reactor regulatory program will be about the same in FY 1988 as they are in FY 1987. However, the mix of in-house staff and program support funding will change, and there will be some adjustments within the program as the nature of the workload shifts from conducting reviews for operating licenses to maintaining regulatory oversight for a growing population of operating nuclear power plants.

Additional resources will be applied to technically evaluate changes to existing reactor licenses, to examine and license reactor operators, to resolve reactor safety issues, and to implement the Commission's Severe Accident Policy. These increases are partially offset by funding decreases associated with advanced reactor concepts work and a declining number of applicants for reactor operating licenses.

NRC is also providing for a higher level of review of some plants identified as needing increased regulatory attention, and evaluations of unanticipated reactor events. These activities require significant agency resources and management attention. For example, NRC efforts related to TVA plants and Comanche Peak, as well as evaluating operational events, will continue to require application of our staff and contractor resources to review safety and licensee management issues.

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QUESTION 2 (Continued)

-3-

Nuclear Material Safety and Safeguards

Program support funding for our Nuclear Material Safety and Safeguards program will be about the same in FY 1988 as it is in FY 1987.

The Nuclear Material Safety and Safeguards programs have been adjusted in response to the additional responsibilities assigned to the NRC by the Low Level Radioactive Waste Policy Act of 1980, as amended in 1985, and the Nuclear Waste Policy Act of 1982. Most importantly, NRC must: ensure that appropriate regulations exist for both NRC and state licensing of low-level waste disposal sites; be prepared to provide technical assistance to states in reaching decisions on such disposal sites; and be prepared to license both a monitored retrievable storage facility, if authorized by Congress, and the high level waste repository.

Inspection and Enforcement

The agency continues to improve the effectiveness and efficiency of the reactor inspection effort. Programs are being developed to improve the methods and information used to focus inspections on particular plants and systems which are most prone to problems and on new inspection approaches. To determine where resources are most needed, the NRC will consider event assessments, inspection appraisals, operational data, probabilistic risk assessments and plant performance indicators.

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QUESTION 2 (Continued)

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Additional resources are being applied to conduct specialized inspections at operating reactors, upgrade NRC's incident response capability, respond to unanticipated reactor problems that are expected to occur in an industry of this size, and provide additional technical training for inspectors. The proposed budget also provides an increase to the inspection program for NRC's materials licensees. It is this area that the average citizen is most likely to come in contact with licensed nuclear materials. NRC regulates approximately 9,000 materials licensees.

Nuclear Regulatory Research

The NRC research program is needed to provide us with sound technical information that we must have to deal effectively with a number of complex technical issues. In FY 1988, the major emphasis of the NRC research program will continue to be the early identification and resolution of operational safety issues. Examples of these operational safety issues are corrosion in piping and vessels, radiation embrittlement of reactor vessels, defective valves and relays in safety systems, inadequate means for detecting and characterizing flaws in critical components, steam generator degradation in pressurized water reactors, cracked piping in boiling water reactors, temporary loss of feedwater at pressurized water reactors, and power loss to integrated control systems. The program support funding increase for our research program will provide resources for: the construction, testing and initial operations of the thermal hydraulic test facilities which will provide continuing experimental capability for information on which to base future regulatory actions; additional human factors research planning; selective

5/6/87 BREAUX Q2

QUESTION 2 (Continued)

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experimentation and testing of various aspects of a high-level waste repository to validate performance assessment models to be used in the regulatory process and in licensing evaluation; and evaluations of alternatives to the presently used shallow land burial for disposal of low-level waste.

QUESTION 3. Please explain the status of the Commission's implementation of section 7601 of Public Law 99-272, governing the assessment of annual charges. What is the Commission's position with respect to increasing or modifying the current authority to collect "user fees" from NRC licensees?

ANSWER.

The Commission adopted a new regulation (10 CFR Part 171) which became effective October 20, 1986. The new regulation is based on section 7601 of P.L. 99-272 and requires the NRC to assess and collect annual fees from each operating power reactor. The annual fee to be assessed during FY 1987 is \$950,000 per reactor. Fee collections in FY 1987 under 10 CFR Part 171 are estimated to be approximately \$96 million. This amount, when added to the fees assessed under 10 CFR Part 170 (estimated at \$37 million), equals about \$133 million or 33 percent of the NRC FY 1987 budget. Three lawsuits have been filed with the U. S. Courts of Appeals for the District of Columbia Circuit challenging the annual fees assessed under 10 CFR Part 171. Oral arguments are scheduled for September 1987. To date, the NRC has collected \$55 million under 10 CFR Part 171. Several utilities have filed requests for exemption from the annual fee. To date, the Commission has granted full exemptions for FY 1987 to GPU Nuclear Corporation (Three Mile Island Unit No. 2) and Long Island Lighting Company (Shoreham Nuclear Power Station), and partial exemptions to Consumers Power Company (Big Rock Point Plant), Dairyland Power Cooperative (LaCrosse Boiling Water Reactor) and Yankee Atomic Electric Company (Yankee Plant).

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QUESTION 3 (Continued)

2

The Commission takes no position on what percentage of its budget should be recovered through fees imposed on licensees. However, the Commission believes that it would be preferable to base its annual fee on the principle that those licensees who require the greatest expenditure of NRC resources should pay the greatest annual fee. The Commission staff is revising 10 CFR Part 171 to implement this approach. The staff's efforts should result in a rule which ties regulatory fees more closely to the costs of providing services to each individual licensee. Proposed authorization legislation has been submitted to the Congress which would amend P.L. 99-272 to more clearly reflect this approach.

Commissioner Asselstine adds the following:

Commissioner Asselstine supports imposing annual charges to recover a greater portion of the costs of safety research and generic rulemaking from licensees who benefit from such activities. He believes that the 50% user fee proposal included in the Commission's FY 88-89 budget request is one means of accomplishing this objective.

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QUESTION 4. (a) Please explain the rationale for the Commission's proposed modification to its emergency planning regulations.

ANSWER.

The rationale for the Commission's proposed modification to its emergency planning regulations is set forth in the attached testimony, presented by Chairman Zech on April 28, 1987, to the Subcommittee on Energy and Environment of the House Committee on Interior and Insular Affairs. Very briefly, the purpose can be described as follows: (1) to give explicit effect to Congressional intent, as expressed in 1980 and adopted at that time by the Commission, that the NRC review a utility-prepared emergency plan in the absence of a state or locally prepared plan; (2) to clarify that withdrawal of state or local officials from the emergency planning process does not automatically bar license issuance, and that final decisional authority on emergency planning issues resides with NRC; and (3) to provide more detailed criteria than the general criteria of current regulations for the evaluation of a utility plan in cases of state or local non-cooperation, with the recognition that any plan, to pass muster, must meet the 1980 Authorization Act's standard of "reasonable assurance that public health and safety is not endangered by operation of the facility concerned." Moreover, Section 182(a) of the Atomic Energy Act provides that a finding of "adequate protection to the health and safety of the public" is a prerequisite to the issuance of every operating license.

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QUESTION 4 (Continued)

- 2 -

Commissioner Asselstine adds the following:

I have different views on the Commission's proposed rule. They are set out in more detail in my attached testimony.*

*Retained in committee files.

QUESTION 4 (Continued)

- 3 -

- (b) Is this change consistent with current law governing emergency planning?

ANSWER.

As described in Chairman Zech's April 28 testimony, the purpose of the rule change is to give explicit effect to Congress's decision, embodied in Section 109 of the NRC Authorization Act of 1980, that in the absence of an adequate state or local emergency plan, the Commission is to consider the adequacy of a utility-prepared emergency plan. Similar provisions appeared in two succeeding NRC Authorization Acts. Absent contrary Congressional instruction, the NRC regulations adopted in accordance with the 1980 Authorization Act remain in force. Congress has taken no action which would suggest an intent to alter the determination reflected in the 1980 Act.

Commissioner Asselstine adds the following:

In my view, the Commission misreads the 1980 Authorization Act. I do not believe that Congress intended that the Commission should permit a utility plan to serve as a wholesale substitution for state and local participation in the emergency planning and preparedness process. Obviously, the 1980 Act was a compromise between the Senate version of the bill which would have prohibited operation in the absence of a state or local plan and the House version which merely provided for Commission review of state plans. I believe the intention of the compromise was to allow the Commission some

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QUESTION 4 (Continued)

- 4 -

flexibility while retaining the central element of effective emergency planning -- participation by state and local governments in emergency preparedness. In other words, a utility plan could be used to substitute if there were no state plan, or if there were no local plan, but the understanding was that the state and local governments would implement the plan, or that the utility plan would be used as an interim measure for a part of the overall plan. The understanding was not that there would be no participation by any state or local government in either planning or implementing the plan.

One need only look to the legislative history to find support for this. Senator Hart, the floor manager of the bill said:

"The Conferees intend that every nuclear plant ultimately should have applicable to it a state emergency response plan that protects the public from a nuclear accident." Congressional Record June 16, 1980 (S 7083)

Representative Udall, floor manager in the House made the same statement. Congressional Record June 10, 1980 (H 4724). Thus, while the Authorization Act did permit the Commission to consider a utility plan, I do not believe that the intent was to allow a utility plan to provide a substitute to all planning and preparation by state and local governments.

The Commission claims that its interpretation of the Act is supported by the statement in the Statement of Considerations for the 1980 rule that the Commission had asked Congressional staffers if the 1980 rule was consistent with the Authorization Act. To the contrary, that statement supports my

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QUESTION 4 (Continued)

- 5 -

interpretation. The 1980 rule made state and local participation in planning a condition of granting a license. The regulation allows for some compensating measures by the utility, i.e., some flexibility. This is exactly my interpretation of the 1980 Act.

Moreover, the 1980 Authorization Act mandated that the Commission develop new and improved standards for determining the adequacy of radiological emergency planning and preparedness. These new standards were to be the basis for deciding whether to allow the issuance of new operating licenses. The Act also recognized that the Federal Emergency Agency was the expert agency within the Federal government on emergency planning and directed that they be given a central role in the review and approval process. Both of these elements are included in the Commission's existing emergency planning rule. Under that rule, a utility plan must meet the same standards as a state and local plan, and the Commission's decision on the adequacy of emergency planning must be based upon the expert judgments of FEMA. As FEMA's comments make clear, the Commission's proposal would change the standards for judging the adequacy of emergency planning in these cases in which state and local governments do not participate. I believe this is contrary to what the Congress intended in the 1980 Act.

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QUESTION 4 (Continued)

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- (c) Has FEMA commented on the proposed rule? If so, please provide your response to FEMA's comments.

ANSWER.

Yes, FEMA has commented on the NRC's proposed rule. Its comments, dated April 28, 1987, are attached. The NRC appreciates those comments, which it will take into account, along with the other comments that are received, in developing a final rule. To respond in detail to FEMA's comments at this time could in effect prejudice the outcome of the rulemaking, and therefore, apart from a single factual clarification, we will confine ourselves to two general comments.

The matter to be clarified relates to FEMA's interpretation of the rule as requiring a showing that the applicant has taken all reasonable and feasible steps to develop an offsite emergency plan and response capability rather than a showing that the emergency response plans offer reasonable assurance that adequate measures to protect the public can be taken in the event of an emergency. The intent of the proposed rule is to require both a threshold showing by the applicant that its plan includes effective, reasonable, and achievable measures to compensate for the lack of state or local cooperation and that any emergency plan, to be approved, meet the "adequacy" (reasonable assurance) test.

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QUESTION 4 (Continued)

- 7 -

Our general comments are as follows. First, it is clear from FEMA's comments that FEMA shares with NRC the conviction that federal, state, and local partnership in the area of emergency planning protects public health and safety best. Second, it is also clear that FEMA shares with NRC a commitment to a close working relationship between the two agencies, to ensure the best possible decisions on radiological emergency preparedness.

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QUESTION #4(c) Attachment



Federal Emergency Management Agency

Washington, D.C. 20472

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April 28, 1987

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OFFICE
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Mr. Samuel J. Chilk
Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Comments on Proposed Rule on Licensing of Nuclear Power Plants Where State and Local Governments Decline to Participate in Offsite Emergency Planning

Dear Mr. Chilk:

This letter provides the comments of the Federal Emergency Management Agency (FEMA) on the Nuclear Regulatory Commission (NRC) proposed rule, "Licensing of Nuclear Power Plants Where State and Local Governments Decline to Participate in Offsite Emergency Planning." This proposed rule was published in the Federal Register on March 6, 1987 (52 FR 6980).

The NRC has proposed a change in its regulations which would permit the licensing of nuclear power plants where State and local governments decline to participate in the design, exercise, or implementation of offsite emergency preparedness planning. Under those circumstances, the proposed rule change would permit the applicant to be licensed upon showing that (1) its inability to comply with the normal emergency planning requirements could be remedied or adequately compensated for by reasonable cooperation by the State and local governments, (2) the applicant has made a good faith and sustained effort to obtain this cooperation, (3) the plans developed by the applicant include all effective measures to compensate for the lack of cooperation which are reasonable and feasible under the circumstances and which take into account a possible State or local response to an actual emergency, and (4) the applicant has provided copies of the plan to all governments which would have otherwise have participated and has assured them that it stands ready to cooperate with them.

FEMA notes, as a first premise to its comments, that, under the Atomic Energy Act, legal responsibility for the licensing of nuclear power plants is vested exclusively in the NRC. In setting standards for licensure, the Commission defines the threat to be prepared against, and it is the Commission which determines what level of preparation is necessary to meet the defined threat. Prior to the incident at the Three Mile Island Nuclear Power Plant in March 1979, there was no licensing requirement for offsite emergency planning and preparedness. Following that incident and the report of the Kemeny Commission in the same year, the NRC strengthened its regulatory requirement that offsite

Mr. Samuel J. Chilk, Page 2.

emergency response planning and preparedness be instituted and be demonstrated adequate to protect the public before new licenses would be issued. It also adopted the Kemeny Commission recommendation that FEMA should take the lead responsibility for offsite emergency plan evaluation. Additional requirements were established to insure such planning and preparation would be accomplished at previously licensed plants.

As a second premise, FEMA acknowledges that decisions by the NRC on obtaining and maintaining operating licenses are based in part on a composite review of offsite emergency capabilities and those provided by the utility within the plant. The NRC has the authority to determine the relative importance of offsite emergency preparedness in the licensing decision. This statement of FEMA's views on the proposed rule is made on the assumption that adequate offsite emergency planning and preparedness are still considered essential to obtaining and maintaining an operating license.

The proposed rule change is evidently intended to address the preemption issue which is at the center of the litigation over licensing of the Shoreham Nuclear Power Plant and the Seabrook Nuclear Power Plant. The particular issue is whether State and local governments should be able to do indirectly, by declining to participate in offsite emergency planning, what they may not do directly, that is, effectively veto the regulatory decisions of the NRC as to the siting and licensing of nuclear power plants. FEMA believes that this issue of the indirect veto of NRC decisions by state and local governments involves matters of significant public policy which may ultimately have to be resolved by the Congress.

While FEMA has no view as to the validity of any position the NRC may take on the preemption issue per se, the agency does note that the effect of the proposed change is to require a showing that the applicant has taken all reasonable and feasible steps to develop an offsite emergency plan and response capability rather than a showing that the emergency response plans offer reasonable assurance that adequate measures to protect the public can be taken in the event of an emergency.

On its face, the proposed rule incorporates a fundamental change in the way that offsite emergency planning would be evaluated by FEMA if the NRC requests findings and determinations as to whether offsite emergency plans are adequate and can be implemented. It would eliminate the need for full-participation exercises (those testing the capacity of State and local governments) both before and after licensing. Even if exercises are conducted, their value is seriously diminished without the participation of State and local governments. Full-participation exercises serve several important purposes. They are not only tools for evaluating written plans, they are also a means for their refinement and a training vehicle for the emergency personnel who will be called on to respond to an actual emergency. FEMA is of the view that State and local participation, as in the present approach, offers all concerned with offsite emergency planning and preparedness a wealth of experience and sensitivity to local circumstances, the loss of which could

Mr. Samuel J. Chilk, Page 3.

have serious adverse consequences for such activities at existing and future plants.

In February, 1986, FEMA participated in an exercise that did not include State and local governments. The roles of key government officials were played by FEMA employees. From this experience, FEMA concludes that the practice of simulating governmental participation has several important consequences. First, the real-time interaction between officials and other emergency responders is not realistically tested. That compromises the quality of the findings which FEMA is able to make about the preparedness of those other responders. Secondly, the preparedness of the State and local governments is not demonstrated in any meaningful sense. As a result, the conclusions that FEMA would be called on to make about the probable response of State and local governments would be based largely on conjecture. FEMA is very reluctant to certify that adequate protective measures can be taken where any finding would be based on such a degree of conjecture.

The refinement of emergency plans which is the natural outcome of an exercise could also be compromised. The observations on which such refinements would be made are less valid without the participation of State and local governments. Furthermore, these governments may not be committed to changes in their usual ways of operating in emergencies. They are certainly not likely to change their routines during an actual emergency, even if they are convinced of the wisdom of the changes. The lack of training which would, in all probability, follow from holding exercises without State and local government participation would also increase the risk to the population of the affected emergency planning zones.

The existing regulatory scheme anticipates that there will be detailed, documented, provisions in advance of an emergency for the plume exposure emergency planning zone (10 miles out from the plant) and that ad hoc responses will be undertaken as necessary to supplement preplanned actions. This proposed rule would, in effect, sanction extensive across-the-board ad hoc responses. The proposed rule incorporates as a basic premise the assumption that State and local governments are likely to respond in an actual emergency because state law requires them to do so and also because that would presumably be the natural reaction of government officials in time of emergency. Even if the premise is valid, the ad hoc nature of their response could have unfortunate consequences. It does not assure that the full range of necessary actions will be taken. It does make it highly likely that any response will be uncoordinated. To the extent that utility company officials step into the roles of government officials, such as by recommending specific protective actions, there is a high probability that the public and emergency responders will receive conflicting instructions. FEMA also notes that, while the legal issue of the authority of utility officials to perform critical emergency functions in place of State and local officials has been considered by the courts of New York State, it has not been resolved throughout the country.

Mr. Samuel J. Chilk, Page 4.

The concerns identified above relate to communities which have declared or demonstrated an unwillingness to take part in emergency response planning. FEMA is equally concerned that the incentive for cooperative State and local governments to continue their efforts could be diminished should the proposed rule be adopted.

In addition to the major concerns expressed above, FEMA questions several assumptions made explicitly or implicitly in the proposal:

1. The belief expressed by the NRC that State and local governments which have not been involved in emergency planning would nonetheless respond to an actual emergency and follow a comprehensive utility plan is open to question. FEMA has no data that would indicate what State and local government reactions might be in such circumstances.
2. The assumption that the proposed rule change will lessen the burden of litigation is debatable. The phase of the licensing hearings having to do with emergency planning will be no less intense than before and can be expected to be more complex because of the uncertainties introduced into the issue of the adequacy of offsite emergency preparedness. It follows that the potential litigation costs related to the proposed rule would probably be no less than under current regulations.
3. The claim that the requirement for planning placed on State and local governments by Title III of the Superfund Amendments and Reauthorization Act of 1986 would prompt more State cooperation regarding nuclear power plant emergency planning is not supported by facts. The State and local organizational structures for carrying out the provisions of Title III are mandated by law and, in most cases, existing structures will be used. It is not the presence of emergency management structures such as provided under Title III that is at issue. Rather, the question is whether those organizations are willing to participate in nuclear power emergency preparedness.

The adoption of proposed rule would not, in and of itself, resolve FEMA's difficulties in providing findings regarding reasonable assurance for offsite preparedness if state and local governments do not participate. The current Memorandum of Understanding between FEMA and the NRC charges FEMA with evaluating offsite emergency response plans against the criteria set out in the jointly developed guidance document, NUREG 0654/FEMA REP 1, Rev. 1. This guidance document assumes that there will be extensive involvement of state and local governments in the development and implementation of these plans. Without such involvement, many of the evaluation criteria cannot be satisfied. In addition, as noted above, the absence of state and local involvement frustrates or, at the very least, complicates the process of exercising the plans. If FEMA is not able to bring its evaluation process to a conclusion, it cannot offer the NRC the findings it requests. As the NRC

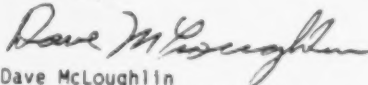
Mr. Samuel J. Chilk, Page 5.

staff seems to have recognized in its presentation of the proposed rule to the Commission, new guidance and standards for evaluation of such an emergency preparedness structure would have to be developed. As staff has recognized, this task is not insignificant and when considered in the light of requisite litigation bears major resource ramifications for this agency.

The NRC statements on this rule and our comments above make it clear that we share a common view that off-site emergency preparedness is best served by active state and local government participation. Should the NRC find the proposed rule appropriate and necessary, we would expect to continue our productive relationship. We would also hope that the NRC would carefully monitor the participation of state and local governments in order to adjust requirements that might discourage such participation.

We appreciate the opportunity to comment on this proposed rule.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dave McLoughlin".

Dave McLoughlin
Deputy Associate Director
State and Local Programs
and Support

QUESTION 4 (Continued)

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- (d) Please provide the Commission's views and comments on the following bills regarding emergency planning:
S.40, S.369, S.408, and Printed Amendment No. 38 to S.408.

ANSWER.

As a general matter, it is the Commission's position that the question of where the balance should be drawn between State and federal authority in the area of radiological emergency planning is an issue of national policy, and as such appropriate for Congressional guidance. The proposed rule is an effort to give effect to such guidance provided by the Congress in 1980. At such time as the Congress decides to issue different guidance, the Commission will duly follow the Congressional mandate. With that background, our comments on specific bills follow.

(1) S.40, which requires criteria for the evaluation of emergency plans to be at least as restrictive as those currently in place for the evaluation of state emergency plans, is closely enough related to issues presented in the current rulemaking that a specific response might constitute prejudgment of that rulemaking.

(2) S.369 includes a provision which requires standards for emergency planning to be at least as protective of public health and safety as those now in effect. As with S.40, a specific response could constitute prejudgment of the current rulemaking.

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QUESTION 4 (Continued)

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(3) S.408 likewise would require standards for emergency planning to be at least as protective of public health and safety as those which are currently in effect. As with S.40 and S.369, the possibility of prejudging the rulemaking precludes a specific response to this point. As a separate matter, the bill would mandate a State-approved emergency plan for each new facility. This is a policy judgment appropriate for Congressional consideration, as noted in the general comments above.

(4) Amendment No. 38 to S.408 may be based in part on a misapprehension of current regulatory requirements, since the amendment's sponsor, in introducing the amendment, stated that "under existing regulations, questions or concerns about emergency planning do not have to be addressed until just before the plant is ready to go to full power...." Congressional Record, S3556 (March 19, 1987). This statement does not reflect the emergency planning requirements at the construction permit stage, adopted in 1980, and now appearing in 10 CFR Part 50, Appendix E, Section II. Current regulations require license applicants to submit "sufficient information to ensure the compatibility of proposed emergency plans for both onsite areas and the EPZs, with facility design features, site layout, and site location with respect to such considerations as access routes, surrounding population distributions, land use, and local jurisdictional boundaries for the EPZs in the case of nuclear power reactors as well as the means by which the standards of Section 50.47(b) will be met."

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QUESTION 5. (a) Please explain the procedures for the initiation, conduct, and completion of investigations by the Office of Investigations.

ANSWER.

Enclosed are copies of the most recent drafts of the Office of Investigations Investigative Procedures Manual. Enclosure 5A-1 describes, inter alia, the procedures for the initiation, conduct, and completion of OI investigations. Enclosure 5A-2 reflects the most recent Commission views regarding the OI Investigative Procedures Manual. Please note that the Manual is not a public document.

PLEASE NOTE: All enclosures to Question 5 have been provided to the Subcommittee under separate cover.

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QUESTION 5 (Continued)

- 2 -

- (b) Provide a list of all investigations initiated since this office was established, together with the subject matter and disposition of each such investigation.

ANSWER.

The requested listing is enclosure 5(b). This listing includes those cases that have been referred to the Department of Justice. The only "disposition" information other than referrals that OI has in its data base is whether a case has been closed. OI does not track any enforcement or other regulatory actions that may result from an OI investigation. Please note that as that list includes ongoing investigations as well as cases under active Department of Justice review, it should be adequately safeguarded.

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QUESTION 5 (Continued)

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- (c) Identify all cases referred to the Department of Justice, the date of referral, the subject matter, and the disposition.

ANSWER.

The requested information is enclosure 5(c). Please note that this list contains cases still under active Department of Justice evaluation. Thus, this list should be adequately safeguarded.

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QUESTION 5 (Continued)

- 4 -

- (d) Provide a summary of the Annual Budget requests submitted by the Director, Office of Investigations, including both funding and personnel levels requested, and the levels approved by the Commission, the Office of Management and Budget, and the Congress.

ANSWER.

The Office of Investigations (OI) was established in mid 1982 and allocated a personnel ceiling of 38 full-time equivalent (FTE) staff. The FY 1983 personnel ceiling for OI was also 38 FTE's. The table below shows the Commission's FY 1984-FY 1989 budget requests to both OMB and the Congress for OI.

<u>Fiscal</u> <u>Year</u>	<u>Commission</u> <u>Request to OMB</u>		<u>President's</u> <u>Budget Request</u>	
	<u>PS\$</u> ^a	<u>FTE</u>	<u>PS\$</u> ^a	<u>FTE</u>
1984	0	42	0	38 ^b
1985	0	49	0	49 ^b
1986	0	38	0	44 ^b
1987	0	44	0	44 ^b
1988	0	44	0	44 ^d
1989	0	44	0	44 ^d

See next page for footnotes

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QUESTION 5 (Continued)

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- a/ The Office of Investigations does not utilize program support (PS) funds (i.e., use of contractors) to conduct their investigations. Payroll, administrative support and travel funds to support the Office of Investigations are centrally managed within the NRC.
- b/ Congressional Authorization Act and Appropriations Act did not reduce the President's Budget request for the Office of Investigations.
- c/ The Office of Investigations personnel ceiling was held to 38 FTE's until FY 1986. (See attached January 24, 1985 memorandum from C. Kammerer to J. Asselstine.)
- d/ NRC Budget Estimates for Fiscal Years 1988-1989 (NUREG-1100, Vol. 3) submitted to Congress in January 1987.

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QUESTION 5 (Continued)

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The Director of the Office of Investigations has offered the following additional information in response to this question:

"The issue of OI personnel levels is better described verbally than statistically. The earliest document we can find is a May 17, 1982, memorandum (enclosure 1) from the Acting Director, OI, Mr. James Fitzgerald, that describes a recommended OI organizational structure requiring a staffing level of 58 FTE. In a June 24, 1982, memorandum (enclosure 2), Chairman Palladino informed Mr. Fitzgerald that "...the number of persons assigned to the office shall not exceed 38." [emphasis added]. This expression of OI staffing levels in terms of actual numbers of persons rather than in terms of full time equivalents (FTE) was extraordinary; all other NRC organizations, and to our knowledge, all other Federal agencies had their staffing levels expressed as FTE.

Over the next year, OI made numerous attempts to gain additional resources. OI also requested authority to express its staffing levels in terms of FTE as the effect of this would be to allow OI to exceed its ceiling for extended periods. At one point, OI could have added at least six investigators and been within an FTE ceiling of 38. In each instance, OI was informed that the limit of 38 persons had been placed on OI by the House Appropriations Committee. On March 30, 1983, Chairman Palladino wrote a memorandum (enclosure 3) to the Director of the NRC Office of Congressional Affairs (OCA)

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QUESTION 5 (Continued)

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asking him to seek "appropriate Congressional approval" for more OI resources. The Director, OI, sent OCA a memorandum on June 1, 1983 (enclosure 4) arguing for increased resources; that memorandum requested (1) authority to use the FTE standard for staffing purposes, and (2) an additional 11 FTEs. This request was not approved. A November 4, 1983, Commission paper was originated by OI (enclosure 5). This paper, SECY-83-453, described a reorganization of OI in order to maximize the use of scarce resources as the 38 person structure was still in effect. On March 30, 1984, the Director, OI, once again wrote the Commission (enclosure 6) regarding the impact of these resources constraints on OI operations, and noted once again that the 38 person limitation still existed. On April 9, 1984, the Director, OI, asked the Director, Office of Administration, for her assistance in allowing OI to manage on an FTE basis (enclosure 7).

On January 9, 1985, the Director, OI again wrote the Commission (enclosure 8) regarding continuing impact of the 38 person staffing constraint and requested an increase of 11 FTEs. The NRC Office of the General Counsel (OGC) provided Commissioner Zech a paper on January 9, 1985 (enclosure 9) that addressed inter alia, certain measures to assist OI staffing problems. On January 17, 1985, Commissioner Asselstine wrote OCA (enclosure 10) and requested the legislative history of the 38 person limit. In his January 24, 1985, reply,

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QUESTION 5 (Continued)

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(enclosure 11), the Director, OCA, provided this history, found no direct evidence of a Congressional restriction, but urged caution because of an apparent Congressional sensitivity regarding the "isolation of the OI investigation staff" from the EDO-supervised inspection and enforcement activities. A February 19, 1985, Staff Requirements Memorandum (enclosure 12) reflects that a majority of the Commission non-concurred in Chairman Palladino's ensuing proposed letter to Congressman Beville requesting the addition of three FTEs to OI.

In June 1985, the Chairman's office authorized OI to submit an FY 86 budget request for an increase in staffing level of six FTEs with the understanding that not all would be hired at once. This staffing increase is reflected in the June 15 draft budget submission that is enclosure 13. Current OI staffing levels remain at 44 FTE. OI has not submitted any formal requests for additional staffing."

A majority of the current Commission believes that the level of support for the Office of Investigations provides adequate resources for the conduct of their activities. The Office of Investigations personnel ceiling is now expressed in FTE, consistent with the rest of the agency, rather than as a limit for the number of personnel it may employ. Since the beginning of FY

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QUESTION 5 (Continued)

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86 that ceiling has been 44 FTE. In that time, OI has not utilized its entire ceiling. Its usage is as follows:

<u>MID YEAR FY-86</u>		<u>END FY -86</u>	<u>MID YEAR FY-87</u>		
Target	22.0	Actual usage	40.9	Target	23.7
Actual use	19.4	Ceiling	44.0	Actual	21.5
Projected use	39.9			Projected use	41.1
Ceiling	44.0			Ceiling	44.0

OI currently has 43 personnel on board and is actively recruiting to fill an administrative vacancy.

In addition to the resources budgeted for the Office of Investigations, technical resources are also used to support investigations. The Commission recognizes and supports the need for such technical support to the Office of Investigations and have included the following guidance to the staff in its Policy and Planning Guidance:

"The EDO should provide technical support to the Office of Investigations in the conduct of investigations with due regard to their mutual priorities."

In implementing this guidance, the regional and headquarters offices have needed to expend about 2 FTEs per year in technical support and the budget includes about 2 FTEs per year for FY 1988-1989.

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QUESTION 5 (Continued)

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Commissioner Asselstine has the following comment:

I have consistently supported the requests of the Office of Investigations for additional staffing. I do not believe that OI has been given sufficient resources to discharge its responsibilities. As a result, there exists a backlog of cases in which investigations are needed. These cases have not received prompt attention due to the limited OI resources, particularly investigator positions.

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QUESTION 6. Please provide the Commission's views and comments on the following bills: S.14, S.100, S.908 (those sections relevant to the NRC), S.1085 (those sections relevant to the NRC), and S.1235 (99th Congress).

ANSWER.

S.14--"Independent Nuclear Safety Board Act of 1987"

The Nuclear Regulatory Commission opposes enactment of S.14. The Commission believes that there are no major deficiencies in the NRC accident investigation program that would warrant formation of an independent Nuclear Safety Board. A Nuclear Safety Board would also likely lead to a duplication of existing Commission functions. Further, the Board's activities might hinder the Commission from acting effectively in the event of an incident.

S.100--"Improved Nuclear Standards Act"

This bill would establish an Inspector General for the NRC. The Inspector General would perform the functions of the Commission's Office of Inspector and Auditor and the Commission's Office of Investigations. The Commission opposes these provisions. While the Commission does not

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QUESTION 6 (Continued)

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quarrel with the basic concept of an Inspector General, it believes that an Inspector General is not necessary because the Commission's Office of Inspector and Auditor has the necessary competence and independence to conduct internal audits and investigations.

The Commission strongly believes that the functions of the Commission's Office of Investigations should not be included in an Inspector General's Office. Traditionally, the jurisdiction of Inspector Generals is limited to internal rather than external investigations. The Commission does not believe that the office that conducts investigations of our licensees and others in the regulated industry should be independent of the Commission. The Commission needs to be able to give directions and set priorities for its external investigatory office to ensure that these investigations continue to support its safety mission and are completed in a timely manner. Results of these investigations are used by the Commission in making licensing and enforcement decisions.

See also the discussion under S. 908.

Commissioner Bernthal has no objection to establishing an independent IG at the NRC, though for reasons cited by the Commission, he does not believe such a step is necessary. It would, however, ease the burden on the Commission.

A separate, second set of issues raised by S.100 involve emergency planning.

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QUESTION 6 (Continued)

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In the three years subsequent to promulgation of the 1980 NRC's emergency planning amendments, FEMA evaluated state and local government radiological emergency planning and preparedness in approximately 150 exercises. Based on this experience, on the substantial expenditure of Federal, state, local and licensee resources necessary for annual exercises, and on the recognition that independent of any NRC or FEMA requirements, states and localities often must exercise their emergency capabilities in response to various natural and man-made emergencies, the Commission in 1984 relaxed its exercise requirements. Three provisions were highlighted in the new rule:

The Commission continued to require annual onsite exercises, but decided that where a full participation exercise after licensing demonstrated adequate offsite planning and preparedness, another such exercise would not be necessary for two years.

Where FEMA found that the exercise demonstrated deficiencies in planning and preparedness, remedial exercises would be needed to assure that deficiencies were corrected.

Licensees were required to provide an opportunity for State and local government participation in the licensees' annual emergency preparedness exercise.

The Commission has now had nearly three years of experience using this rule, with no indication of any adverse effect on preparedness. It has proposed a further change in its rules to conform its pre-licensing exercise requirements to the post licensing requirements. The Commission

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QUESTION 6 (Continued)

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would view the reimposition of an annual exercise requirement as a step backwards that would impose unnecessary burdens on State and local governments.

S.100 also would require the NRC to suspend the license of any plant for which FEMA cannot certify that there is an "evacuation plan" that "assures public safety." The license is to remain suspended until FEMA can retest the plan and provide such assurance. We believe that this provision could prove quite troublesome.

FEMA/NRC standards provide for adequate emergency plans, of which evacuation plans are just one part. Indeed, available data seem to indicate that sheltering rather than evacuation can be an effective protective response in a radiological emergency. To require the shutdown of a plant based on a potential defect in just part of the overall plan seems inadvisable. Moreover, we doubt that any plan can for all situations, "assure public safety" in the sense that public safety is absolutely guaranteed. Furthermore, the proposed standard does not allow any flexibility for interim measures to compensate for identified planning or preparedness defects. Finally, the proposal could lead to extended plant shutdowns and delays in the grant of operating licenses due to FEMA's inability to quickly retest and evaluate emergency plans. Tests of emergency plans can easily take months of planning and coordination between FEMA, licensees, State and local participants and the NRC. In the interim, preparedness problems identified during an exercise might well have been resolved.

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QUESTION 6 (Continued)

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S.908--"Inspector General Act Amendments of 1987"

This legislation would establish an Inspector General within the NRC and make the Commission's Office of Investigations a statutory office with a great degree of independence from the Commission.

The Commission believes creation of an Inspector General is unnecessary, and strongly opposes efforts to make the Office of Investigations independent of the Commission. In our opening statement for the April 9 hearing on S.908 before Senator Glenn, the Commission indicated that it does not "wish to quarrel over the basic concept of an Inspector General." However, a majority of the Commission believes that a non-statutory Office of Inspector and Auditor (OIA) fulfills this function (internal investigations) for the NRC. As an independent regulatory agency, with five Commissioners who are appointed by the President and confirmed by the Senate, the NRC does not, in the opinion of the Commission majority, require an Inspector General as proposed by the bill. The current OIA organizational structure and agency procedures provide the necessary independence that the internal audit and investigation unit requires.

The bill also would establish a statutory Office of Investigations (OI) which is involved in external (licensee and others) investigations. The Commission is concerned that the provision, "neither the Chairman or the Commission may prevent or prohibit the Director, Office of Investigations from initiating, carrying out, or completing any investigation," could restrain the Commission from exercising supervisory control and therefore interfere with our ability to carry out our safety responsibilities for the protection of the public health and safety.

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QUESTION 6 (Continued)

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The Commission must rely on prompt and complete investigations of wrongdoing by licensees. However, the Commission must retain legitimate supervisory oversight and direction in determining which allegations have safety significance that should be pursued by OI and what priority each should have, as well as which allegations concern non-regulatory criminal violations and should be turned over to other appropriate investigative authorities. The Commission has already established OI as a Commission level office. As a result, OI already is independent of the rest of the agency's regulatory line functions and no changes to OI are recommended.

In summary, while the Commission does not "wish to quarrel over the basic concept of an Inspector General," we believe that a non-statutory OIA fulfills this function for the NRC. However, we believe that the bill, in the case of OI, could interfere with our ability to carry out our safety responsibilities and we strongly oppose the OI provisions.

Commissioner Bernthal believes the provisions of S.908 would have little practical effect on the relations between OI and the Commission.

S.1085--"Nuclear Protections and Safety Act of 1987"

This bill would create an independent Department of Energy Nuclear Safety Board to promote safety at DOE's nuclear facilities. The Commission's Advisory Committee on Reactor Safeguards would provide assistance to that Board upon request. To assist the Board, the ACRS would be expanded, by

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QUESTION 6 (Continued)

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the addition of up to five members, and it would be given additional staff. DOE would reimburse the NRC for all costs incurred by the ACRS in providing assistance to the DOE Board.

While the Commission takes no position regarding whether an independent DOE Nuclear Safety Board should be established, it does not believe that the ACRS should provide advice to any such body on a routine basis. The Commission believes that the activities of the ACRS, like the rest of the NRC, should focus on matters involving the private sector or the commercial nuclear industry.

S.1235 (99th Congress)--"Nuclear Regulation Reorganization Act of 1985"

A Commission majority supports legislation which would reorganize the NRC into an agency headed by a single administrator. Following the Three Mile Island accident, both the Kemeny Commission and the Rogovin Special Inquiry recommended that the NRC be headed by a single administrator.

The Commission majority supports creation of a single administrator agency because collegial decision-making and efficient management are not well suited for each other. Prompt decision-making in a collegial body under the constraints of the Sunshine Act is difficult because time must be afforded for each Commissioner to consider the issues and provide separate views. As a result, there is frequently delay in issuing adjudicatory decisions, making rulemaking decisions, providing policy direction to the NRC staff and in

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QUESTION 6 (Continued)

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responding to requests from Congress. Debate of issues is often unduly prolonged in an attempt to develop a consensus position without Commissioners resorting to impractical, time consuming public meetings on a myriad of small policy decisions.

Commissioner Asselstine adds the following:

I have views different from those of the Commission on these bills:

S.14

I believe that an independent safety board is needed to assure that we and the industry learn the crucial lessons of operating experience at the plants. Although improvements have been made in recent months in our ability to investigate serious operating events, our capability to seek out and correct the root causes of these events is still inadequate. Despite two investigations of the 1985 Davis-Besse event, including one involving some people from outside the NRC, we still do not have a clear understanding of the root causes of that event, including particularly the contributions of management attitudes and practices by the licensee's senior management and the role of the NRC staff in not bringing about effective corrective action early on. The same is true for the 1985 Rancho Seco event, which raises even more serious questions about the NRC's past performance in regulating the Babcock and Wilcox reactors. It is simply not realistic to expect that the NRC will be able to evaluate in a critical and objective manner its own past performance. A Nuclear Safety Board

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QUESTION 6 (Continued)

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would provide the necessary independence and objectivity. To avoid the proliferation of advisory groups, I would abolish the Advisory Committee on Reactor Safeguards.

S.908

I support the creation of a statutory inspector general for the NRC, as well as efforts to ensure the independence of the Office of Investigations. My reasons are set out in my testimony before the Senate Committee on Governmental Affairs which is attached.

S.1085

I support efforts to provide some independent safety oversight of the DOE nuclear facilities. However, I agree with the comments of the Commission concerning an expansion of the role of the ACRS in this area.

S.1235 (99th Congress)

I do not support changing the NRC to an agency headed by a single administrator.

The majority has offered at various times several arguments in support of the single administrator form, and I would like to address each one briefly. First, the majority argues that a single administrator will result in more efficient management and decisionmaking than does the Commission form. I do not believe this is necessarily the case. In fact, a comparison of the performance of the NRC with the two other single-administrator agencies with nuclear responsibilities, DOE and EPA, would

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QUESTION 6 (Continued)

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seem to indicate that the Commission is at least as efficient in management and decisionmaking. The Commission has been far ahead of EPA, for example, in promulgating its technical requirements for high-level radioactive waste disposal, low-level waste disposal and uranium mill tailings. Similarly, the Commission was able to carry out its responsibilities for the site selection guidelines for the high-level waste repository much faster than was DOE. On the basis of actual experience, I would argue that the Commission form is not necessarily more inefficient than the single administrator. Nor do I see significant delays in Commission decisionmaking. Where delays occur, it is invariably because the issues are complex and the choices are far from clear. Such difficult decisions take time, whether they are being considered by a single administrator or a Commission.

Second, the majority contends that the Commission form is outdated, and is ill-suited to the oversight of 100 operating nuclear power plants.

Implicit in this statement is the argument that the Commission no longer faces the types of broad policy issues that benefit from full and open discussion by a multi-member group with differing viewpoints. I do not believe this is the case. In recent years, the Commission has considered or is in the process of considering a broad range of safety issues, including:

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QUESTION 6 (Continued)

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- ° the adequacy of safety at the Indian Point plants;
- ° the Commission's severe accident policy;
- ° The Commission's requirements for backfitting new safety features on existing plants;
- ° the radioactive source term from a severe accident;
- ° safety goals for assuring the safety adequacy of current and future plants;
- ° the adequacy of emergency planning requirements;
- ° the Commission's confidence that permanent waste disposal facilities will be available when needed;
- ° the soundness of our enforcement policy; and
- ° reactor decommissioning to name just a few.

Each of these is a major policy issue that is particularly well suited to consideration by a multi-member Commission, and I expect that we will continue to be faced with such issues in the future. The simple fact is that these policy issues, as well as ensuring the continued safe operation of more than 100 plants, are too important to trust to the judgment of a single individual.

Although I am sure that the NRC would benefit from greater management attention in the oversight of the 100 operating plants, I believe that this can be readily accomplished with the Commission form. For example, there is nothing to prohibit the Chairman from taking a more active and direct role in assuring that the NRC staff carries out the regulatory policies established by the Commission. Chairman Zech has attempted to have a more

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QUESTION 6 (Continued)

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active management role as Chairman, and I support that. So long as he does not attempt to alter Commission policy or make policy decisions on his own, there is nothing to prevent the Chairman from taking a more active role in the day-to-day management of the staff. Indeed, such an approach provides for improved management oversight while at the same time retaining the benefits of Commission consideration of the broad public policy issues that routinely come before this agency. I might add that no additional legislation is needed for the Chairman to carry out this management role. Using this approach, in my view, is preferable to replacing the Commission form with a single administrator.

The remaining two reasons given by the majority in support of the single administrator are more troubling to me. The majority argues that existence of differing Commission views on the issues can confuse the staff and the public, and the majority objects to being required to hold its deliberations in public, as required by the Government in the Sunshine Act. I should note that the latter objection goes far beyond previous Commission statements in favor of some limited authority to hold private discussions to exchange preliminary thoughts on issues before the Commission. I am not impressed by either of these arguments. I believe that the Congress and the public benefit from hearing different views and perspectives on the significant policy issues before the Commission. Rather than confusing the public and the staff, they assure that different viewpoints are heard and considered. As for the Sunshine Act, whatever the merits of some limited preliminary discussions in private, the actual debate on the principal safety issues facing the NRC should take place in public. To give just one

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QUESTION 6 (Continued)

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example, in the aftermath of the Chernobyl accident, the public is most concerned with whether we can expect to see a core meltdown in the United States in the foreseeable future, what the chances are that such an accident could lead to large offsite releases of radiation, whether the Commission views the present level of risk to be acceptable, and if not, what we are doing to reduce it. These are the kinds of issues that the Commission should address openly and in a public forum. Instead, the Commission seems to be arguing for the need to consider these and all other safety issues affecting the public in private.

I also do not believe that a single administrator form is in the industry's best interests. The industry continually argues for the need for improved regulatory stability and predictability, given the fact that ten years or more are needed to build the plants, and the plants are expected to operate for 30-40 years. With a Commission, major policy changes tend to occur gradually, since turnover among individual Commissioners is staggered. With a single administrator, large changes in policy and direction can occur quite rapidly, often with drastic consequences for the regulated industry. I think the experiences of recent years with EPA and the Department of Interior are good examples. One should consider whether this industry, with its particular need for predictability and stability, would be best served by a regulatory system that is subject to wide and rapid fluctuations.

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S.100

I support the creation of an independent, statutory inspector general for the NRC. See my comments on S.908. I also support efforts to protect the independence of the Office of Investigations. However, given the different functions of OIA (internal investigations) and OI (external investigations), I am not sure that combining those functions in an IG is the most appropriate way of accomplishing that goal. I suggested an alternative approach in my comments on S.908.

S.100 also raises several issues related to emergency planning. I agree in general with the the Commission's argument for some flexibility in coping with deficiencies in emergency planning. However, I would support legislation to require that all operating plants and all applicants for operating licenses (1) satisfy the Commission's existing emergency planning and preparedness standards and (2) obtain an affirmative finding by FEMA on the adequacy of existing emergency planning and preparedness measures.

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QUESTION 7. Please provide the Commission's views and comments on the legislation submitted by the Commission on March 20, 1987 to encourage standardization of nuclear power plants. How does this legislation differ from the bill submitted by the Commission in the 99th Congress? Please identify all changes made in the legislation submitted on March 20, together with the justification for such changes.

ANSWER.

The licensing and regulatory process could be improved if Congress were to enact the nuclear power plant standardization and licensing reform legislation that the Commission recently submitted to Congress. The proposed legislation would promote nuclear safety by encouraging standardization of nuclear power plants and would provide for an efficient and more effective licensing process for the design, siting, construction, and operation of nuclear power plants.

The proposal that the Commission submitted this year differs in three significant respects from the proposal it submitted in 1985. First, proposed section 185b. of the Atomic Energy Act would provide that a holder of a combined construction permit and operating license could not commence operation until the Commission has made an affirmative finding that construction has been completed in conformance with the terms of the

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QUESTION 7 (Continued)

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combined construction permit and operating license and the Commission's regulations. Under the 1985 bill authorization to operate did not specifically require affirmative Commission action.

Second, the Commission modified the proposed Section 185(c) to make clear that the criteria for modifying determinations made in NRC proceedings applied only to proceedings conducted pursuant to the proposed legislation. Our 1985 proposal was not clear on this point and could have been construed to mean that the criteria for modifying determinations would be applicable not only to facilities licensed pursuant to the new Act, but also to facilities licensed under the existing Atomic Energy Act.

Finally, we revised the criteria for modifying determinations made in proceedings for the issuance of a permit or license for a facility, facility site, or facility design (proposed sections 185c., 193f., and 194e.). The 1985 bill provided that determinations considered and decided in proceedings could not be modified unless the Commission determined, based on significant new information, that the modification is required to protect the public health and safety or the common defense and security and that the modification proposed will substantially enhance the public health and safety or the common defense and security by improving overall safety of facility operation.

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QUESTION 7 (Continued)

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If a modification is required to protect the public health and safety, it would make little sense to require a separate finding that the modification substantially improved the overall safety of facility operation. Accordingly, we changed the criteria for modifying determinations to provide that changes would be made only if they were required to protect the public health and safety or the common defense and security or to comply with the Commission's regulations.

A line-by-line comparison between the 1985 and 1987 bills is attached.*

Commissioner Bernthal adds the following:

An additional change to the 1985 legislation should be made. Currently, Section 185(b) requires that, before the Commission may designate an issue for hearing at an advanced stage of the licensing process, it must find that the issue:

"...consists of a substantial dispute of fact, necessary for the Commission's decision, that cannot be resolved with sufficient accuracy except at a hearing...." [emphasis added]

I have concluded that the underscored language should be deleted from the Bill now before the Committee. The deletion would erase the nagging concern, echoed by a number of Members of Congress, that the Commission, after all, would be free to decide that any issue could (or could not!) be determined with sufficient accuracy in lieu of a hearing.

*Retained in committee files.

QUESTION 7 (Continued)

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Whether or not such determinations might in principle be possible outside the context of a hearing, the other requisite findings specified in Section 185(b) are sufficient by themselves to assure that only significant issues which could not have raised previously are considered for litigation late in the game. I note that the Commission's General Counsel has previously concurred in the substance of this recommendation.

Commissioner Asselstine adds:

I do not support the Commission's licensing reform bill for several reasons.

First, the bill does not go far enough in the area of standardization. In my view, the bill should mandate, rather than merely encourage, standardization. If there is to be a second round of building nuclear power plants, we should not repeat past mistakes. We should not permit the building of custom plants. Further, the bill should require that a standardized design only be approved if it is an essentially complete design and if all significant safety issues have been resolved. The bill should define exactly what information is necessary for design approval.

Second, the licensing process set out in the proposed legislation is not adequate. The Commission's bill would place a very high threshold on the ability of a member of the public to obtain a hearing after the issuance of a combined construction permit/operating license (CP/OL). The bill, in effect, makes a hearing at the pre-operation stage discretionary. In my view, the bill should provide for a right to a hearing at that stage on issues which cannot be dealt with adequately at the CP/OL stage -- for example, emergency planning, whether the plant was built as designed, and the qualifications of plant management and operators.

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QUESTION 8. (a) Please summarize the status of the Commission's implementation of Section 306 of Public Law 97-425, governing training and accreditation of nuclear power plant personnel.

ANSWER.

The Commission has published a "Policy Statement on the Training and Qualification of Nuclear Power Plant Personnel" (50 FR 11147, March 20, 1985). That Policy Statement deferred rulemaking during a two-year evaluation period while endorsing the INPO-managed accreditation program because it contained the essential elements of effective performance-based training. The evaluation period is over and staff expects shortly to recommend continuing endorsement of the accreditation program and deferral of rulemaking. Staff also recommends continuing monitoring of the program through direct inspections of utility training programs and observation of the INPO process. Also, NRC has recently published changes to 10 CFR Part 55 - Operator's Licenses (52 FR 9453, March 25, 1987) - and revisions to Regulatory Guides 1.134 ("Medical Evaluation of Licensed Personnel for Nuclear Power Plants"), 1.149 ("Nuclear Power Plant Simulation Facilities for Use in Operator Licensing Examinations"), and 1.8 ("Qualification and Training of Personnel for Nuclear Power Plants"). These documents provide requirements and guidance on the administration of operator licensing examinations, functional criteria for simulation facilities, and eligibility criteria for applicants for operators licenses and renewal of those licenses.

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QUESTION 8 (Continued)

- 2 -

- (b) What is the status of the industry's efforts to establish training and accreditation programs for such personnel?

ANSWER.

The industry commitment to have 10 training programs at each of the 61 sites "ready for accreditation" by the end of 1986 was met. As of April 1, 1987, 369 programs at 60 sites have received accreditation. The staff expects that all programs at the 61 sites are expected to be accredited by mid-1988.

QUESTION 8 (Continued)

- 3 -

(c) Is the Commission satisfied with the progress made in this regard?

ANSWER.

The NRC staff has completed the two-year evaluation of the INPO-managed accreditation program and expects to recommend that the Commission continue to endorse the program thus deferring rulemaking in the area of training. Training facilities, staff and programs have been significantly improved the past two years. The industry met its commitment to have 10 programs at 61 "Ready for Accreditation" by the end of 1986; all utilities are expected to become fully accredited by INPO by mid-1988. While some problems remain, INPO and its utility members are achieving the goal of improving the quality of training in the industry.

NRC and INPO staff are discussing some improvements to INPO's review process and possible enhancements to their review criteria. NRC recognizes the necessity for continuing oversight. Therefore, NRC will continue to independently monitor licensee and INPO's performance through direct inspections and reviews of licensee programs, NRC operator licensing examinations, and observation of INPO evaluations of utility programs and Accrediting Board meetings.

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QUESTION 8 (Continued)

- 4 -

- (d) Please summarize the Commission's program for fiscal years 1988 and 1989 in the human factors area. What are the major issues that, in the Commission's view, need to be addressed, what approach are you proposing to address these issues, and what funding and personnel levels have been requested to carry out your program in this area? In this regard, please respond to the comments of the National Academy of Science on the Commission's human factors program in their recent report on the Commission's research program.

ANSWER.

Human factors regulatory activities have become an integral part of ongoing NRC efforts related to the review of applications, amendments to operating licenses, evaluation of incidents and other day-to-day oversight of the safety of reactor operations. The focus of the human factors licensing program for fiscal years 1988 and 1989 is to complete the efforts related to industry implementation of post-TMI human factors requirements and guidance. These include detailed control room design reviews, installation of Safety Parameter Display Systems (SPDS), upgrade of emergency operating procedures, and improvements to training. NRC staff are continuing to improve the operator licensing process through oversight of examinations and development of guidance relating to the reliability and validity of licensing examinations.

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QUESTION 8 (Continued)

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The funding and personnel levels allocated to these activities are approximately 15 Full Time Equivalents (FTEs) and \$1,575K in FY87 for generic issues, and 77 FTEs and \$3,205K to conduct operator licensing examinations. For FY88, these two activities are budgeted at 13 FTEs and \$1,065K and 81 FTEs and \$2,760K respectively.

The Commission has two ongoing research activities related to human factors. The first on human reliability is directed toward methods, data and procedures for realistically assessing the impact of human performance on overall nuclear power plant risk. The second on severe accident management is directed toward strategies for sensing and reacting to abnormal events in a timely manner to minimize adverse consequences.

With regard to the National Academy of Sciences (NAS) recent report on the Commission's research program we agree with the NAS recommendations that increased emphasis should be placed on research in the human factors area. At present, the research staff is preparing a formal plan for conducting human factors research through FY89 and beyond. Reinstitution of the human factors research program is a preliminary response to the NAS report. The NAS is also performing a more detailed study of the need for additional human factors research. Upon receipt of this more detailed report (which we expect to receive in August 1987), we will expand the plan by incorporating recommendations from this report that are appropriate for execution by a regulatory agency. We anticipate that the findings and recommendations contained in the NAS report on human factors research will allow us to fully implement a well-rounded program responding to pertinent human factors issues associated with commercial nuclear power plant operations.

The FY87 research budget is 7 staff years and \$1.6 million. The research budget for a broader program in human factors in FY88 and 89 is being developed.

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QUESTION 9. Please summarize all Commission regulations, initiatives, or programs governing the management aspect of civilian nuclear power. Is the Commission satisfied with the management performance of the nuclear utility industry? Please identify all instances over the past five years where significant or notable safety concerns have arisen as a result of management-related concerns or problems. What additional initiatives, regulations, or programs, if any, are necessary or appropriate to address this issue?

ANSWER.

The NRC believes that management performance is a crucial factor in achieving and sustaining safety in operations. Therefore, management performance is evaluated in NRC's inspection and oversight of licensee plant operations. Building upon the specific findings of NRC inspections of licensee activities in the various areas of plant operations and supporting activities, the performance of each utility is formally evaluated on a periodic basis. This is accomplished through NRC's Systematic Assessment of Licensee Performance (SALP) Program which is conducted for each plant every 12 - 18 months. These SALP assessments are specifically tailored to provide a measurement of licensee management performance. Each assessment is reviewed with senior utility officials to assure that they are advised directly on areas where NRC observes poor or declining performance. In instances where these performance assessments indicate management weaknesses the NRC seeks corrective action by utilities.

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QUESTION 9 (Continued)

- 2 -

Before the NRC grants an operating license, there is an indepth NRC review of the licensee's organizational structure and personnel qualifications. In addition, the many varied reviews and inspections conducted during plant construction, start-up testing and actual licensing also provide a measure of management capability and attitude. In the final analysis, a license will not be issued if significant management shortcomings are identified and remain unresolved.

With respect to operating plants, the NRC has taken several recent actions to improve our ability to diagnose and address licensee performance and management problems. Recently, the agency initiated a practice of periodic meetings of senior NRC management to review and synthesize the results of various NRC licensee oversight efforts. These meetings help assure that problems with licensee performance are detected and dealt with early, before they reach a stage when serious safety problems or events could occur. The meetings also serve as a mechanism to evaluate effectiveness of NRC efforts to obtain improvements in licensee management performance where unsatisfactory performance is has been detected.

On April 12 of this year, the NRC reorganized with the primary objective of focusing more of our limited resources on the safe operation of licensed facilities. The change of our focus from design and construction of facilities to the safe operation of plants was an inevitable outcome given the few remaining plants under construction. The objective of this reorganization is to focus our resources in such a way as to address plant

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QUESTION 9 (Continued)

- 3 -

operations, including identifying poor plant performance, in a more timely fashion. Implied in this is the early identification of management issues and declining trends in management performance.

In addition to NRC efforts, the nuclear industry has established the Institute for Nuclear Power Operations (INPO). This organization has developed programs with the goal of establishing and implementing good management practices at nuclear plants. The NRC supports these programs and is generally satisfied with the progress to date of this industry initiative.

Because many safety problems have a root in management attitudes and performance, it is not possible to identify all instances over the past five years where significant or notable safety concerns have arisen as a result of management-related concerns or problems. However, there have been a number of instances where plants were either shut down or kept shut down because of the severe nature of performance shortcomings and/or management problems which existed in each case. The more salient of these include the Davis-Besse Nuclear Power Station, operated by Toledo Edison Company; the Rancho Seco Nuclear Station operated by the Sacramento Municipal Utilities District (SMUD); the Tennessee Valley Authority nuclear units; and the Peach Bottom Nuclear Station operated by Philadelphia Electric Company. In each case, the NRC has required significant management and safety program improvements necessary for us to draw the conclusion that, with reasonable assurance, these plants can be operated safely. To date, the Commission has allowed the restart of Davis-Besse whereas the other facilities continue to be shut down while developing and implementing corrective action programs.

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QUESTION 9 (Continued)

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NRC regulations specify safety criteria that must be satisfied. However, in general, these regulations are not prescriptive with respect to management practices. The basic approach taken by NRC is to assure that the symptoms of poor management are being identified in our inspection and oversight programs and effectively communicated to licensees. We have not attempted to dictate or prescribe to licensees what specific management actions should be taken. Rather, licensees are held responsible for developing improvement programs and correcting their own management and performance problems.

The NRC is not totally satisfied with the management performance at all plants, as indicated by the above plant-specific actions taken by the NRC. Therefore, the NRC will continue to assess the effectiveness of the actions and the initiatives described above. Other initiatives are being considered which will further enhance the NRC thrust into the areas of licensee management attitude and competence. As necessary, NRC will continue to develop new methods and modify existing ones for diagnosing and dealing with management-related problems at an early stage before serious safety problems occur.

Commissioner Asselstine adds the following:

I believe the NRC is focusing more on the management aspect of civilian nuclear power plants than it has in the past few years but more needs to be accomplished in addressing what may be the greatest contributor to nuclear power risks. The importance of management to reactor risks was recognized by the regulators well over a decade ago as indicated in the attached speech by

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QUESTION 9 (Continued)

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the Director of Regulation in 1973. In recognition of the importance of having effective quality assurance programs for operations, the regulators performed in the early 1970's a special management review inspection of utilities with operating nuclear plants. Based on the significant deficiencies found in that inspection, the regulators strengthened their requirements on quality assurance programs for operations.

Following the TMI-2 accident in 1979, the Institute for Nuclear Power Operations was created by the industry to self police the industry's efforts to achieve excellence in management and operations. The NRC essentially allowed the industry to take the lead in operations management. Some seven to eight years later in the industry's efforts to strive for excellence, we find a significant number of utilities that do not meet even the minimally acceptable standards of management as indicated in the Commission's response above. Some in the industry itself are beginning to recognize that quiet, behind-the-scenes activities are not enough to bring about effective and long-lasting improvements in the weaker utilities. They have called for publicizing the problems within utilities in hopes that that would bring about the necessary changes.

It is true that on an ad hoc basis we identify some individual problem plants. Pilgrim and Peach Bottom are cases in point. However, we lack a systematic and reliable process for identifying and correcting management weaknesses at the operating plants. Even where management weaknesses are identified on an ad hoc basis, we are not always effective in addressing the root causes of the

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QUESTION 9 (Continued)

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problems, at least until after they result in serious degradation in plant performance.

I believe the regulators of the early 1970's were closer to the mark than we are today. The thrust of the attached 1973 speech is: the quality of operations at a nuclear plant is reflective of the conscience of management. One root cause of the operational problems at nuclear plants today appears to be problems in the conscience of management and the regulators should not be hesitant in correcting that. The NRC should return to the regulatory principle of the early 1970's and insist on effective quality assurance programs for operations, effective maintenance programs and effective management at nuclear utilities.

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QUESTION 10. Please provide a status report on the Commission's program to establish a nuclear data link system.

ANSWER.

The concept of providing a continuous transmission of several hundred parameters from all nuclear power facilities to the NRC, as was envisioned by the Nuclear Data Link, was reevaluated by the NRC in light of our assessment of the NRC role in an emergency at a licensed nuclear facility and the data needed to support that role.

The Commission has determined that NRC's primary role in an emergency is to monitor and advise. Our monitoring role is in two areas:

- ° We monitor the licensee to assure that appropriate recommendations are made with respect to offsite actions.
- ° We also monitor the licensee to assure they are taking the appropriate onsite action to mitigate consequences of the incident.

Another aspect of our role is advisory:

- ° We support both the licensee and the onsite NRC response team with technical analyses, advice, and logistical support.

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QUESTION 10 (Continued)

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" We also support offsite authorities including confirming licensees' recommendations to offsite authorities.

Agency advice or recommendations will be made by the NRC's Chairman (or his designee) to a licensee manager or the appropriate state or local decisionmaker.

In addition to the above, NRC is the single Federal focal point for keeping other Federal agencies and entities and the media informed on the status of the incident.

The effectiveness of the NRC in performing its role is dependent on the quality and timeliness of the event information the agency receives. The types of information the agency needs for emergency response are: reactor systems conditions, containment building conditions, radioactivity release rates, and the plant's meteorological data. It may also be appropriate to provide state and local authorities with the meteorological and radiological data as this data is useful given their role and expertise.

Currently, the data is transmitted to the NRC from the licensee by standard voice telephone communications. Two primary phone links are used. One is dedicated for reactor data, the other is primarily for radiological and meteorological data. Our experience with voice-only emergency communications, starting with the accident at Three Mile Island and reinforced numerous times since then, is that it is too slow and error prone. Information is misunderstood, frequently creating false issues which at best divert experts

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from the real problems. Even worse, incorrect data can cause NRC to respond to the licensee or offsite officials with inaccurate or outdated advice or recommendations.

In order to determine the best means to meet our data needs, the NRC considered options varying from the Nuclear Data Link involving extensive continuous transmission of a large quantity of parameters from all facilities to the current voice method. The Emergency Response Data System concept was selected as an efficient way to provide the data in an accurate, reliable, and timely manner while minimizing impact on the licensees. The differences between the original Nuclear Data Link concept and the Emergency Response Data System are noted on the attached table.

The ERDS concept is a direct electronic transmission of selected parameters from nuclear power reactor licensees' electronic data systems. The ERDS would be for use only during declared emergencies at the facilities. It will be activated by the licensees during declared emergencies to begin transmission of the selected set of parameters to the NRC Operations Center.

We have successfully conducted tests of the ERDS concept with Duke Power Company at the McGuire facility and with Commonwealth Edison at the LaSalle facility. Both tests confirmed the advantages of having direct electronic transmission of a selected set of parameters.

Based on the successful tests of the concept, the NRC initiated an ERDS Requirements Analysis. The effort consisted of visits to the licensees to

QUESTION 10 (Continued)

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determine the design of the site data systems and the availability of the data requested by the NRC.

Based on the results of the surveys, it appears that the ERDS concept can be implemented with relatively little difficulty at essentially all sites. Ease of implementation will vary depending on type and utilization of licensee equipment. Implementation at some sites may require a delay until other equipment upgrades are completed.

In view of the large potential benefit to the NRC incident response capability from the ERDS and the results of the survey indicating the relative ease of implementation, the NRC currently plans to begin implementation of the system on a voluntary basis.

The contractor selection process is underway. An award is expected near the end of FY 1987. The order in which plants will be brought into the ERDS system will be decided based on the ease of implementation, cost, cooperativeness of licensee, and operational history of the facility. Only limited plant connections are expected the first year due to high initial costs for the processing hardware and software at Headquarters. However, completion of the system is expected in 5 years.

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NDL vs ERDS

NDL	ERDS
* Automatic activation based on plant parameters. Potential regulatory tool.	* Licensees activated. Probably at Alert level.
* Data continuously recorded at Operations Center.	* Data provided under emergency conditions only.
* Some connections direct to plant sensors, potentially degrading instrumentation.	* No direct connection.
* Initial data list about 400 variables, later reduced to 125.	* Data list about 60 variables, comparable to SPDS set.
* High cost due to requirement for a totally new system.	* Relatively low cost due to usage of existing systems.
* Extensive backfit, requiring dedicated onsite computer.	* Minimal backfit, software for data assembly and modem for transmission.
* Increased data may encourage NRC to direct plant operation.	* Limited data list necessary to assess plant safety.
* Accuracy and reliability are excellent.	* Accuracy and reliability are excellent.
* Timeliness is excellent.	* Timeliness is expected to be excellent. Initiation will depend on system configuration.
* Completeness is potentially excellent due to parameter availability.	* Completeness is expected to be excellent. Site surveys have indicated good parameter coincidence.
* Reduces data gathering and transmission burden on licensees.	* Reduces data gathering and transmission burden on licensees. Supplemental voice transmissions have been reduced.

QUESTION 11. Please provide your comments on the report recently submitted to Congress by the Department of Energy entitled "Recommendations for Management of Greater-Than-Class-C Low-Level Radioactive Waste." Do you agree with the findings and recommendations of this report? Please identify all regulatory implications associated with the findings and recommendations contained in this report.

ANSWER.

The subject report, prepared by DOE in response to requirements in the Low-Level Radioactive Waste Policy Amendments Act of 1985 (Amendments Act), was to provide DOE's recommendations for ensuring safe disposal of waste exceeding Class C concentrations (so called Greater-Than-Class-C, or GTCC waste). In this report, DOE assumes responsibility for disposal of GTCC waste, and announces its plan to accept GTCC wastes from commercial sources for management and eventual disposal. (Management may include storage, treatment, packaging, and transportation within DOE facilities.)

The DOE report does not address how the GTCC will be disposed, and cites five actions required from NRC and EPA before DOE could address waste disposal options. NRC staff does not agree with DOE's assessment. NRC staff's analysis of the DOE report, and of the five actions identified by DOE, is contained in the attached April 30, 1987 letter from Hugh L. Thompson, Jr. (NRC) to A. David Rossin (DOE).

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 30, 1987

Mr. A. David Rossin
Assistant Secretary
for Nuclear Energy
U. S. Department of Energy
Washington, DC 20585

Dear Mr. Rossin:

This letter responds to the report "Recommendations for Management of Greater-Than-Class-C Low-Level Radioactive Waste" (DOE/NE-0077), which DOE prepared and submitted to Congress in response to the Low-Level Radioactive Waste Policy Amendments Act of 1985, and which you forwarded to Chairman Zech by letter dated February 27, 1987.

We are pleased that DOE has formally assumed responsibility for disposal of greater-than-Class-C (GTCC) wastes, and endorse DOE's plan for prompt acceptance of such wastes for storage and eventual disposal. We believe that DOE's estimates of current and future commercially-generated GTCC waste volumes are reasonable, and note that these estimates confirm our belief that GTCC waste volumes will be very small for the foreseeable future.

In the report, DOE expresses its belief that it cannot address disposal options until NRC and EPA complete five necessary regulatory actions. We do not consider this to be the case, and have enclosed comments on each of the five identified actions. Our review of the report suggests to us that, for reasons of administrative efficiency, a reasonable approach for DOE to consider would be disposal of GTCC waste in a high-level waste (HLW) geologic repository. We have compared DOE's GTCC projections with our conceptual definition of HLW as outlined to DOE staff in September 1986 and published in the Federal Register on February 27 of this year as an advance notice of proposed rulemaking. We estimate that roughly 85 percent of GTCC wastes would be defined as either HLW or as waste requiring permanent isolation due to transuranic or other long-lived radionuclides. Disposal in a HLW repository would provide the required degree of isolation for both types of waste.

We also note that, for the most part, regulatory criteria for disposal of GTCC waste in a HLW repository already exist. Existing EPA regulations in 40 CFR Part 191 cover disposal of spent fuel, HLW, and transuranic waste, while NRC regulations in 10 CFR Part 60 cover disposal of source, byproduct, and special nuclear material in a deep geologic repository.

This approach would save both DOE and NRC the considerable resources necessary to develop and license separate GTCC waste disposal facilities. Since most GTCC wastes generate little heat, waste emplacement within a repository should

Mr. A. David Rossin

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be more efficient, and therefore less costly on a per volume basis, than that for either HLW or spent nuclear fuel. We also note that the alternative approach of developing separate disposal facilities for the very small quantities of commercially-generated GTCC waste expected for the foreseeable future is not likely to be economically attractive. We recognize, however, that there may be circumstances where the disposal of some of the GTCC waste may be feasible with greater confinement techniques at low-level waste disposal sites.

For the above reasons, we suggest that DOE consider disposal of all GTCC waste in a HLW repository. This option would require a minimum of additional NRC and EPA regulatory guidance. Should you wish to pursue this option, the NRC staff will begin work to develop any packaging or other guidance necessary to accommodate repository disposal of GTCC waste. In the event that your own analysis indicates that another option is preferable, we will be happy to provide whatever regulatory guidance is needed.

Sincerely,

Original Signed by:
Robert M. Bernero

Hugh L. Thompson, Jr., Director
Office of Nuclear Material Safety
and Safeguards

Enclosure:
Comments on Regulatory Uncertainties

Regulatory Uncertainties Cited by DOE in DOE/NE-0077

On page iv of "Recommendations for Management of Greater-Than-Class-C Low-Level Radioactive Waste" (DOE/NE-0077), DOE cites five major actions to be completed by NRC and EPA before DOE could develop options for disposal of waste exceeding Class C concentrations (also called "greater-than-Class-C, or GTCC") waste. As discussed below, NRC staff does not believe that the absence of these actions would preclude DOE from identifying and evaluating disposal options for GTCC waste.

- I. Promulgation of NRC licensing guidance for GTCC low-level waste (LLW) disposal facilities.

Specific guidance for disposal of GTCC waste was not available when the Low-Level Radioactive Waste Policy Amendments Act (Amendments Act) was enacted. Congress nevertheless required DOE to submit a report identifying and evaluating disposal options for GTCC waste.

On February 27, 1987, NRC published in the Federal Register (52 FR 5992) an advance notice of proposed rulemaking (ANPR) on the definition of HLW. As stated in the ANPR, NRC's conceptual approach for rulemaking would numerically define HLW and establish two categories of GTCC low-level wastes: LLW "requiring permanent isolation" and "highly radioactive" LLW. On September 25, 1986, NRC staff briefed DOE staff on this concept.

Comparison of the NRC conceptual approach in the ANPR with the 2,000 m³ of GTCC waste projected by DOE to the year 2020 results in the following approximate distribution:

Percent	Volume (m ³)	Exceeds Class C Due to:		Waste Category per ANPR
		Short-Lived Nuclides	Long-Lived Nuclides	
50	1,000	Yes	Yes	HLW
35	700	No	Yes	LLW Requiring Permanent Isolation
15	300	Yes	No	Highly Radioactive LLW

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Based on NRC's conceptual HLW definition, about half of the GTCC waste identified by DOE would be defined as HLW. This waste would be principally composed of certain highly radioactive activated core components originating from future decommissioning of nuclear power plants. NRC licensing requirements for HLW disposal already exist in the form of 10 CFR Part 60.

Roughly 700 m³ of the remaining waste would be defined as LLW requiring permanent isolation. Most of this LLW will exceed Class C concentrations based on the presence of transuranic radionuclides, but some waste may contain carbon-14 or other long-lived radionuclides. Disposal of this waste in a HLW repository would provide the required isolation and would be consistent with DOE's plans for disposal of noncommercial transuranic waste in the Waste Isolation Pilot Project. If this approach is followed, then 10 CFR Part 60 again provides a ready framework for licensing. Resolution of any remaining technical issues, such as packaging requirements, should not require a major effort.

If DOE recommends development of a separate facility for disposal of this long-lived LLW, then approximately two years would be required to develop licensing requirements. Since the waste will contain high concentrations of transuranic radionuclides, disposal must take place in a manner consistent with EPA regulations in 40 CFR Part 191. The ANPR sets forth a procedure for determining whether alternative disposal methods can achieve the required degree of isolation. NRC staff notes, however, that this small quantity of LLW may not warrant the additional complexity and expense of an additional DOE disposal facility.

This leaves only about 300 m³ of GTCC waste which would be defined as highly radioactive LLW based on high concentrations of shorter-lived radionuclides such as cesium-137. This volume estimate is based on expected generation of small quantities of GTCC waste from sealed source manufacturing, and upon the expectation that some GTCC activated metal waste from reactor operations and decommissioning will exceed Class C levels based only on M1-63.

DOE could possibly recommend development of a disposal program for such waste which is separate from that for the above majority of the GTCC waste containing long-lived radionuclides. In this case, we consider that a disposal facility could be licensed under 10 CFR Part 61. This regulation was promulgated in 1983, and NRC staff has published substantial additional guidance such as the standard format and content guide for a LLW disposal facility license application (NUREG-1199), the standard review plan for review of this application (NUREG-1200), and the studies

by the Army Corps of Engineers on alternative LLW disposal methods. While this additional guidance does not explicitly address the GTCC portion of LLW, it provides a basis for DOE to pursue this option if DOE elects to do so. The small waste quantities, however, may not justify the additional complexity and expense of an additional DOE facility; however, there may be circumstances where the disposal of some of the GTCC waste may be feasible with greater confinement techniques at low-level waste disposal sites.

If DOE recommended disposal of all GTCC waste in a geologic HLW repository, that approach could be readily licensed under 10 CFR Part 60, and it also would eliminate the need for development of separate disposal efforts by both NRC and DOE. If additional guidance is needed, we would appreciate DOE's prompt identification of its needs.

2. Promulgation of an EPA general environmental standard for disposal of non-transuranic GTCC low-level waste.

This standard, too, was unavailable when the Amendments Act was enacted, but its absence should not preclude the assessment of disposal options by DOE.

Decisions on waste disposal need not await promulgation of EPA standards. The absence of an EPA general environmental standard for LLW did not prevent NRC from promulgating 10 CFR Part 61 in 1983, and does not prevent States and Compacts from proceeding with development of new LLW disposal capacity. In the case of HLW disposal, the EPA standard for spent nuclear fuel, high-level waste, and transuranic waste was promulgated in September 1985. Prior to its promulgation, NRC developed 10 CFR Part 60 and DOE for many years pursued a repository development and siting program.

NRC staff also notes that, based on NRC's conceptual definition of HLW as outlined in the February 27 Federal Register Notice, most GTCC waste would already be covered by the existing EPA environmental standard on management and disposal of spent nuclear fuel, high-level waste, and transuranic waste (40 CFR Part 191). Thus, if DOE recommended disposal of GTCC waste in a HLW repository, decisions for disposal of GTCC waste need not await promulgation of an EPA LLW standard (see response to item 1).

3. A decision by NRC whether or not to proceed with definition of high-level radioactive waste based on radionuclide concentrations.

As noted in the response to item 1, NRC has initiated a rulemaking to define HLW based on radionuclide concentrations.

4. (If NRC decides to proceed with a concentration-based definition of high-level waste) -- promulgation of the definition.

NRC is proceeding with the rulemaking on the definition of HLW. The schedule calls for promulgation of a final rule within two years. DOE's evaluation of disposal options need not await completion of this rulemaking.

5. Resolution of the inconsistencies between EPA and NRC regulations for management of GTCC low-level radioactive waste that also contains hazardous chemical waste.

NRC and EPA are working to resolve regulatory differences, and neither the states nor DOE need be delayed by these actions. The two agencies recently issued joint guidance on the definition and identification of commercial mixed LLW, as well as combined location standards for commercial mixed LLW disposal facilities. NRC staff expects that only a very small fraction of GTCC waste (i.e., no more than 1-2%) will contain both radioactive and chemically hazardous substances.

Potential problems caused by the above regulatory differences would be largely avoided by disposal of GTCC waste in a HLW repository. DOE and EPA are already working to resolve the general issue of the applicability of the Resource Conservation and Recovery Act to high-level and transuranic waste. Thus, mixed GTCC waste could be easily addressed as a subset of this general issue.

QUESTION 12. Section 161(b) of the AEA of 1954 provides that the Atomic Energy Commission is authorized to "establish by rule, regulation, or order, such standards and instructions to govern the possession and use of special nuclear material, source material, and byproduct material as the Commission may deem necessary [or] desirable to promote the common defense and security or to protect health or to minimize danger to life or promulgate, issue, rescind, and amend such rules and regulations as may be necessary to carry out the purposes of [the AEA]." Since DOE and NRC retained equal jurisdictional authority under sections 161b and 161p (see House Report 93707 at page 27 and Senate Report 93-980 at page 84) in the Energy Reorganization Act of 1974 (P.L. 93-438), how would licensing restriction conditions, with respect to utilization of foreign uranium in domestic reactors, be implemented in order to carry out all of the purposes of section 161v of the Atomic Energy Act?

ANSWER.

Any licensing restrictions with respect to utilization of foreign uranium in domestic reactors licensed by the NRC would have to be imposed by the NRC rather than the Department of Energy. This is because Section 201(f) of the Energy Reorganization Act of 1974 transferred to the Nuclear

QUESTION 12 (Continued)

- 2 -

Regulatory Commission all licensing and related regulatory functions of the Atomic Energy Commission: The Department of Justice recently took the same position in pending federal court litigation, Western Nuclear, Inc., et al., v. F. Clark Huffman, et al. (No. 86-1942, 10th Cir.).

NUCLEAR - CTOR RESEARCH

MATERIAL AGING (CONTINUED)

Nondestructive Examination and Evaluation (Continued)

- ° Initiate international round robin testing for evaluating techniques for in-service inspection of piping including the difficult-to-inspect cast stainless steel pipes. Develop unified set of inspection and acceptance requirements for in-service inspection of pipes and vessels.
- ° Accomplish final field validation of in-service crack monitoring at Peach Bottom 2 and Watts Bar Unit 1 reactors. A code case will be submitted for acceptance by ASME, industry and NRC of the acoustic emission technology for crack growth monitoring.
- ° Complete and field test an advanced acoustic emission leak detection technology for in-service monitoring of pressure boundary components.

WASTE MANAGEMENT PROGRAM	FY 1986		FY 1987		FY 1988		FY 1989	
	Actual		Current Estimate		Pres. Budget		Pres. Budget	
Program Support (Staff)	\$ 4,598	(17)	\$ 5,800	(19)	\$ 9,000	(18)	\$ 9,000	(18)

HIGH-LEVEL WASTE

- ° Efforts will address waste package performance and likely failure mechanisms, performance of key features of an underground facility such as borehole and shaft seals and performance of backfill and packing materials, the groundwater hydrology in and around the repository, radionuclide transport, performance assessment methodologies, and interaction between the engineered and material components of HLW repositories.

LOW-LEVEL WASTE

- ° Continue/initiate research to provide information relative to site suitability, facility design, low level waste (LLW) source term, waste form and package performance, operational monitoring and postoperational care, and the performance of low-level waste disposal facilities over long periods of time.
- ° Validate performance assessment models and computer programs.
- ° Conduct research to evaluate alternative low level waste disposal concepts and engineered enhancements to shallow land burial.

NUCLEAR REGULATORY RESEARCH

REGULATORY APPLICATIONS PROGRAM

Program Support
(Staff)

	FY 1986	FY 1987	FY 1988	FY 1989
	Actual	Current	Pres.	Pres.
		Estimate	Budget	Budget
	\$ 4,384	\$ 2,355	\$ 2,400	\$ 2,400
	(44)	(36)	(34)	(34)

REGULATORY APPLICATIONS

- ° Establish a prioritization process for safety-related problems that have been identified to ensure optimum use of available resources.
- ° Develop a long-range research plan describing the agency's research needs and presenting relative priority assigned to each problem requiring research.

MANAGEMENT OF RULEMAKING

- ° Continue the program to reevaluate the risk effectiveness of selected regulatory requirements through the application of probabilistic risk assessment (PRA) and value-impact analysis tools and to eliminate or modify those that have marginal importance to safety.
- ° Perform detailed analyses using, Probable Risk Assessment and value-impact tools on approximately ten regulatory requirements which may support possible future regulatory actions.
- ° Provide support for the development of complex standards and rulemaking such as revising the siting and emergency preparedness regulations and the preparation of related guidance documents.
- ° Develop and demonstrate improved tools for performing regulatory analysis and value-impact assessments for a broad range of regulatory actions such as new regulations, guides, backfits, and USI's.

RADIATION RISK ASSESSMENT

- ° Continue health effects effort with emphasis on the impact of new scientific information on NRC regulatory standards, e.g., revised dosimetry for atomic bomb survivors and animal studies on the toxicity of soluble uranium.
- ° Maintain and update radiation protection standards for the protection of workers and the general public based on the latest scientific information.

NUCLEAR LABORATORY RESEARCH

MANAGEMENT DIRECTION AND
SUPPORT PROGRAM

Program Support
(Staff)

FY 1986	FY 1987	FY 1988	FY 1989
Actual	Current Estimate	Pres. Budget	Pres. Budget
\$ 0 (22)	\$ 0 (22)	\$ 0 (22)	\$ 0 (22)

^a Provide the Director of BES with assistance and support in the direction and evaluation of complex technical research projects and program plans, and coordinates, directs, and carries out the administrative and fiscal matters of the Office.

^a Coordinate with the licensing and regulatory groups within NRC to identify their needs and to assure that the research program is responsive to the maximum extent practicable, and coordinate with industry and foreign agencies to develop and execute multiparty agreements on safety research.

FY 1988-1989 BUDGET SUMMARY

(Dollars in Thousands, Staff in FTE's)

Program Direction & Administration

	FY 1986			FY 1987			FY 1988			FY 1989		
	Actual			Estimate			Estimate			Estimate		
	Program	Support	Staff	Program	Support	Staff	Program	Support	Staff	Program	Support	Staff
OCM	\$ 0		38	\$ 285		43	\$ 160		43	\$ 160		43
SECY	110		30	385		30	350		28	350		27
IA	0		27	0		26	0		26	0		26
PA	13		17	15		17	10		17	10		17
PE	46		13	0		0	0		0	0		0
CA	0		9	1		8	1		8	1		7
EDO	0		22	50		23	50		23	50		23
SDBU/CR	286		9	150		7	150		7	150		7
IRM	0		112	0		117	0		114	0		114
RM	455		92	1,300		87	897		85	819		84
ADM	0		320	0		289	0		280	0		277
Totals	\$ 910		689	\$2,186		647	\$1,618		631	\$1,540		625

FY 1988-1989 BUDGET SUMMARY
(Dollars in Thousands, Staff in FTE's)

	<u>FY 1986</u>		<u>FY 1987</u>		<u>FY 1988</u>		<u>FY 1989</u>	
	<u>Actual</u>		<u>Estimate</u>		<u>Estimate</u>		<u>Estimate</u>	
	<u>Program</u>	<u>Staff</u>	<u>Program</u>	<u>Staff</u>	<u>Program</u>	<u>Staff</u>	<u>Program</u>	<u>Staff</u>
	<u>Support</u>		<u>Support</u>		<u>Support</u>		<u>Support</u>	
ACRS	\$ 207	49	\$ 320	42	\$ 320	39	\$ 320	38
ASLBP	152	45	820	38	816	30	816	30
ASLAP	0	15	10	14	7	10	5	8
OI	0	41	0	44	0	44	0	44
GC	92	125	89	118	89	108	89	103
IP	2	26	50	26	50	24	50	23
SP	622	34	700	32	710	31	740	30
AEOD	<u>3,093</u>	<u>40</u>	<u>4,240</u>	<u>43</u>	<u>4,890</u>	<u>48</u>	<u>5,640</u>	<u>47</u>
Totals	\$4,168	375	\$6,229	357	\$6,882	334	\$7,660	323

FY 1988-1989 BUDGET SUMMARY

(Dollars in Thousands)

	FY 1986 <u>Actual</u>	FY 1987 <u>Estimate</u>	FY 1988 <u>Estimate</u>	FY 1989 <u>Estimate</u>
<u>Administrative Support</u>	\$56,868	\$61,835	\$65,800	\$69,500

- ° Provides for administrative and logistical support for the Headquarters Offices.
- ° Provides for completion of Headquarters staff occupancy in the White Flint I building and the beginning of coordination for occupancy in White Flint II.
- ° Provides for Automatic Data Processing capabilities, including scientific and information systems computing, and word processing.
- ° Provides for telecommunications services, including long-distance and local transmission capabilities for both voice and data.
- ° Provides for continued operation and maintenance of the Document Control System and other records management activities.
- ° Provides \$8,300K in FY 1988 and 1989 for administrative and logistical support of the five Regional Offices.

FY 1988-1989 BUDGET SUMMARY
(Dollars in Thousands)

	FY 1986 <u>Actual</u>	FY 1987 <u>Estimate</u>	FY 1988 <u>Estimate</u>	FY 1989 <u>Estimate</u>
<u>Administrative Support</u>	\$56,868	\$61,835	\$65,800	\$69,500

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- ° Provides for continued operation and maintenance of the Document Control System and other records management activities.
- ° Provides \$8,300K in FY 1988 and 1989 for administrative and logistical support of the five Regional Offices.

QUESTION 13. The Atomic Energy Commission testified most recently in 1974 that in the event that the viability of the domestic uranium industry were threatened it could impose, in addition to or in lieu of, enrichment limitations imposed under Section 161v of the AEA of 1954, license conditions pursuant to Sections 53, 57, 69, or 103 on its nuclear reactor licenses or on licensed private enrichment facilities requiring domestic use of domestically produced uranium in order to assure the maintenance of a viable domestic uranium industry. DOE now has implementing authority for section 161v. Nevertheless, if DOE determines that the viability of the domestic uranium industry is threatened and that enrichment limitations under Section 161v in and of themselves may, or will, be ineffective to restore viability, can DOE request NRC to impose license conditions on nuclear reactor licensees or to take other similar action sufficient to restore or assure domestic uranium industry viability and is NRC empowered to favorably respond to such a request?

ANSWER.

The Commission has broad authority under Sections 161b, 161i, and 161p of the Atomic Energy Act to promulgate whatever regulations or orders are necessary or desirable to carry out the purposes of that Act--namely the

QUESTION 13 (Continued)

- 2 -

protection of the public health and safety and promotion of the nation's common defense and security. The viability of the domestic uranium industry or of DOE's enrichment enterprise do not appear to raise public health and safety questions. Accordingly, any Commission regulations or orders of the type under discussion would need to be based on a finding that these are necessary or desirable to promote the common defense and security. The Department of Energy could ask the Commission to make the necessary finding. The Commission would need to develop a record supporting such a finding before taking appropriate action.

5/6/87 BREAUX Q13

QUESTION 14. If DOE determines that the viability of the domestic uranium industry is threatened and that enrichment limitations under Section 161v may or will be ineffective to restore viability because DOE's enrichment customers may leave the agency for alternative foreign suppliers thus threatening the viability of the domestic enrichment enterprise, can DOE request NRC to impose license conditions on nuclear reactor licensees or to take other similar action sufficient to assure the viability of DOE's uranium enrichment enterprise and is NRC empowered to favorably respond to such a request?

ANSWER.

See answer to question 13.

5/6/87 BREAUX Q14

NUCLEAR EMERGENCY PLANNING

THURSDAY, MAY 7, 1987

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON NUCLEAR REGULATION,
Washington, DC.

The Subcommittee on Nuclear Regulation met, pursuant to notice, at 9:45 a.m., in room 406, Dirksen Senate Office Building, Hon. John Breaux (chairman of the subcommittee) presiding.

Present: Senators Breaux, Reid, Moynihan, Warner, Simpson, and Symms.

OPENING STATEMENT OF HON. JOHN B. BREAUX, U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator BREAUX. The subcommittee will please come to order.

This morning the Subcommittee on Nuclear Regulation meets to hold its second day of hearings on issues related to the development of comprehensive legislation authorizing the appropriation of funds for activities of the Nuclear Regulatory Commission for fiscal years 1988 and 1989. As I indicated in my opening statement yesterday, today's hearing will focus on the issue of the role of emergency planning in the licensing of nuclear powerplants. Briefly, we all know that the Congress and the Nuclear Regulatory Commission in response to the accident at Three Mile Island in 1979 changed our way of thinking about the role of offsite emergency response capabilities in the licensing and operation of nuclear powerplants. Congress and the NRC both expressed a belief that the issuance of licenses to plants in the future should be conditioned on a showing that a response capability existed that would satisfy the "adequate protection" standard of the Atomic Energy Act. As this belief was fleshed out in congressional deliberations over the 1980 NRC Authorization Act and in the rulemakings of the NRC, we also both expressed a preference that in order to meet this standard, State and local governments should prepare, and the Federal Emergency Management Agency should assess the adequacy of, the emergency response plans.

At the same time, however, I think it is fair to say that everyone recognized the potential that such a requirement might have for granting to State and local officials what has been described as a veto over any particular plant should they refuse to submit any such plan. Congress, for its part, reacted to this possibility by providing for what is widely described as the "utility plan option." Under the development of regulations by the Nuclear Regulatory Commission and the Federal Emergency Management Agency, the

concept of such an option never has had much meaning because of the required showing that a plan not only could provide for adequate response, but that it would provide for such a response; hence, the current dilemma that we face in two specific situations. The NRC, for its part, has responded to this dilemma by publishing for public comment a proposed rule.

Clearly, the Congress is being forced to assess these issues. Today's hearing will provide us with an excellent opportunity to build a record from which we will be able to judge a future course of action, and I look forward to the testimony.

I would make an observation for the record that yesterday, at our hearing, we had a situation develop with one of the Commissioners, Mr. Roberts. We have met with Mr. Roberts' attorneys this morning to try and establish a procedure by which he may come back before this committee in order to respond to questions that he was unable to respond to yesterday that were asked by this member and other members of our subcommittee. We expect to meet again with his attorneys at about 10:30 or so this morning to try and establish a procedure by which he will be able to testify before the committee either this morning or this afternoon. We simply do not have an answer at this time.

Any comments, Senator Reid?

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator REID. Mr. Chairman, I appreciate your holding this hearing today to focus on the issue of emergency planning at nuclear reactors.

The development of offsite emergency plans came about for a number of reasons, but mainly because of the accident at Three Mile Island in 1979. As part of the licensing process, the Nuclear Regulatory Commission requires the participation of State and local officials in emergency planning. Offsite emergency preparedness is certainly a necessary prerequisite for addressing the safety and health needs of the public in the unfortunate event of a nuclear accident.

The Federal Emergency Management Agency serves as an advisor to the Nuclear Regulatory Commission on offsite safety around nuclear powerplants.

At issue is the Nuclear Regulatory Commission's proposed change that would allow nuclear powerplants to obtain licenses without State or local cooperation in emergency planning. Plants could operate after Federal approval of evacuation plans drafted and tested by the utility. I question whether the public safety could be assured at some locations without the participation of State and local officials in the emergency preparedness process. Aside from the serious questions raised about safety, common sense dictates that State and local officials should be involved in these necessary planning procedures.

Let me provide an example which will illustrate the need for the participation of State and local officials. Most of my State, Nevada, is owned by the Federal Government. In other words, 87 percent of Nevada's land is public land; that is the land that is administered

by one Federal agency or another. Nevada has no nuclear power-plants and we do not envision any in the near future. Consequently, one could take the parochial view that the involvement of State and local officials in Nevada in emergency planning procedures in the event of a nuclear accident is a moot point. However, the residents of my State would be up in arms if the procedure that requires State and local participation in emergency planning was not a mandatory part of the licensing powers. There would be a strong criticism in the event that a Federally-approved evacuation plan was used to allow a nuclear plant to operate.

Mr. Chairman, it goes without saying that one of my concerns is that Nevada is being considered as a high-level nuclear waste repository, and we, as a State, want some say as to what develops or doesn't develop there. I think that for the State not to have any say over nuclear accidents, nuclear reactors, as we're discussing here today, would be wrong.

Senator BREAUX. Thank you, Senator.

I want to acknowledge a statement from Senator Mitchell who is unable to be here. We will place his statement in the record at this point.

[The statement referred to follows:]

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Mr. Chairman, I applaud your decision to have a hearing on emergency planning in areas surrounding nuclear power plants. The Nuclear Regulatory Commission's recently proposed change to its regulations would allow a new nuclear power plant to operate even if State and local governments have not participated in the emergency planning process. As I stated in my comments to the Commission, this is a bad idea.

I strongly oppose this proposal. A proper and safe evacuation cannot be implemented without State and local cooperation. They are needed to call an evacuation, direct traffic and mobilize public transportation. They are needed in the planning process because only state or local personnel will be familiar with local roads and methods of transportation.

For these reasons, the NRC originally required state and local participation in emergency planning. The Federal Emergency Management Agency has long held that participation by these people is essential to effective emergency planning.

The NRC proposed to change the regulations because several nuclear power plants may not be able to meet the emergency planning criteria established by the NRC in the aftermath of Three Mile Island. The Commission claims a utility may lose billions of dollars if this requirement is not modified.

However, the loss will occur not because the regulations are too stringent, but because the Commission has failed to consider emergency planning and protection of the public health and safety when a power plant is first proposed. In some cases, emergency planning should be considered when the application for a construction permit is submitted.

Some geographical characteristics, such as the population to be evacuated, the location of bodies of water or major highways, will not change significantly in the years it takes to build a nuclear power plant. These factors should be taken into account in the beginning of the planning process to determine whether any evacuation plan can be effective and whether the site selected is the best one for a plant.

The public safety considerations that prompted the agency to promulgate these regulations years ago have not changed. Public safety must be our first priority. The proposed rule change should be withdrawn.

Senator BREAUX. Two of our Senate colleagues will be appearing as witnesses this morning. The first is the Honorable Gordon Humphrey, the Senator from New Hampshire.

Gordon, we are happy to have you here today and pleased to receive your comments about this issue.

**STATEMENT OF HON. GORDON J. HUMPHREY, U.S. SENATOR
FROM THE STATE OF NEW HAMPSHIRE**

Senator HUMPHREY. Thank you, Mr. Chairman, for the opportunity to testify.

The most important mandate in the Federal Government's role in the regulation of nuclear facilities is the protection of the public health and safety. Following the 1979 accident at Three Mile Island, the Nuclear Regulatory Commission concluded that adequate emergency preparedness is an essential aspect of that protection.

Upon adoption of its final emergency planning rule in 1980, the Nuclear Regulatory Commission stated, "As the Commission reacted to the accident at Three Mile Island it became clear that the protection provided by siting and engineered safety features must be bolstered by the ability to take protective measures during the course of an accident." The Commission admitted, Mr. Chairman, in effect, that no technology is infallible. No matter how often we are assured a serious accident at a nuclear plant is not likely to happen, it is necessary—by the Nuclear Regulatory Commission's own admission, at least formerly—to take additional precautions over and above relying on the safety systems designed into a plant.

The Commission also recognized that "to view emergency planning as equivalent to, rather than as secondary to, siting and design in public protection departs from its prior regulatory approach to emergency planning."

Alarmingly, the Commission is now contemplating a return to the pre-Three Mile Island philosophy. The Nuclear Regulatory Commission's proposed rule, published in March, is designed to change existing emergency planning standards due to a lack of State and local participation in offsite emergency planning. In its discussion of the proposed rule, the Nuclear Regulatory Commission states, "These provisions reflect a different concept, that adequate emergency planning and preparedness are needed and important, but that they represent an additional level of protection that comes into play only after all of the other safety requirements for proper plant design, quality construction, and careful, disciplined operation have been considered." I emphasize in the Nuclear Regulatory Commission's own words, speaking of its new proposal, "These provisions reflect a different concept." In other words, the Nuclear Regulatory Commission is changing its mind; it wants to go back to the status quo prior to Three Mile Island, where emergency evacuation planning is subsidiary to the design safety features, not equal to them. I think that is a serious mistake, Mr. Chairman.

Thus, the proposed rule rests upon a policy assumption which seeks to subordinate the importance of emergency planning. This is clearly a move backwards and in the wrong direction.

Recently, the Nuclear Regulatory Commission shut down the Peach Bottom nuclear reactor because the plant operators were sleeping. That brings up an important point. No matter how care-

fully a plan is designed and built, the weak element is always going to be the human element. Human beings are not perfectible by engineers, and I have never seen a profession where complacency doesn't creep in over a period of time. The negligence of the Peach Bottom operators underscores the element of human error and supports the need to maintain emergency evacuation planning as a component of total preparedness equal in importance to technical safety features. Any move to relax existing safety standards is unjustified and would increase the risk to public health and safety and in so doing violate, in my view, the Nuclear Regulatory Commission's charter.

The Nuclear Regulatory Commission even admits, according to its staff analysis, that "The public in the vicinity of the few affected plants"—and it may be few, but one of those few affects my constituents who have every bit as much right to adequate margins of safety as the constituents of the Senators from Louisiana and Nevada—the NRC states, "The public in the vicinity of the few affected plants would be placed at somewhat greater risk"—somewhat greater risk. "Somewhat" is a vague term, but "greater risk" is a pretty clear term—"relative to what would be the case if either the governments cooperated or the NRC adhered to its current emergency planning rules."

According to FEMA, "This proposed rule would, in effect, sanction extensive across-the-board ad hoc responses * * * it does not assure that the full range of necessary actions will be taken." I emphasize, those are the words of FEMA. As a representative of the State of New Hampshire I find it wholly unacceptable to increase risks to the public around the Seabrook plant by lowering emergency planning standards.

The proposed rule would change the emergency planning regulation in certain cases from a standard which requires "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency" to a standard which requires "that offsite emergency planning is achievable." I find this change to be in violation of the "Commission's paramount obligation to assure public health and safety."

And let me say on that point, Mr. Chairman, and reemphasize, as I see it, and as I am sure that other Members of Congress see it, the principal function and responsibility of the Nuclear Regulatory Commission with regard to nuclear reactors is to ensure public safety and health. I am shocked when I review the staff comments in connection with the rulemaking notice, document SECY-87-35 on page 4,

Significant policy questions of equity and fairness are presented where a utility has substantially completed construction and committed substantial resources to a nuclear plant, and then after, when it is far too late, realistically, for the utility to reverse course, the State and local governments oppose the plan by noncooperation.

Who ever gave a charter to the NRC to consider the issue of equity and fairness to utilities? That isn't their charter. That isn't their commission. Their commission and charter is to ensure adequate levels of public health and safety. And to get into questions of equity and fairness with regard to the owners of those plants, they are giving the appearance of impartiality and departing from their responsibilities. And I think that's tell-tale. When they are

concerned about financial well-being and questions of equity and fairness, then their objectivity with respect to safety and public health is greatly in question. Whether emergency plans are developed by a State, a municipality or a utility, or some combination, the bottom line is that these plants must meet a standard which provides reasonable assurance that they will be implemented. Safety is safety and should not be reduced at this plant or that simply because one means of achieving it is more difficult than another.

It is imperative that the NRC increase its efforts to maintain high safety standards and not abandon standards when they become difficult to meet.

According to the Deputy Associate Director of FEMA, Dave McLoughlin, who is testifying this morning, I understand—he can certainly speak for himself—but quoting Mr. McLoughlin, “FEMA is very reluctant to certify that adequate protective measures can be taken where any finding would be based on such a degree of conjecture” as would be necessary under the proposed rule. Mr. McLoughlin states further that under the proposal, “many of the evaluation criteria cannot be satisfied . . . if FEMA is not able to bring its evaluation process to a conclusion, it cannot offer the NRC the findings it requests.” In other words, the proposed rule makes it impossible for the Government’s emergency preparedness experts to evaluate and recommend emergency plans.

Mr. Chairman, I will just ask that the balance of my remarks be included in the record.

Senator BREAUX. Thank you very much, Senator, for your participation and your continued discussion with the members of this subcommittee on an issue that certainly affects your area and that you are very knowledgeable in.

Let me ask you a question from a philosophical standpoint. Do you feel that when we are faced with a situation whereby the refusal of a State or local government to participate in designing an evacuation plan prevents the design of a safe plan for evacuation, that it would be appropriate for Congress to intercede and to clearly overrule the right of an individual State to object to something that Congress has said is in the national interest?

Senator HUMPHREY. Well, we hardly have an epidemic. We have approximately 100 plants in operation; we have two or three whose full operating license is in doubt at this point because of problems in the licensing process. We hardly have an excuse to run roughshod over the legitimate safety concerns of our citizens. Some of these plants have been placed at sites at which a plant should never have been built, and that applies to the plant at Seabrook, in my opinion.

In any event, financial concerns, concerns about the financial health, fairness, equity—for Congress—are greatly subsidiary to our responsibility as Members of Congress to ensure adequate levels of safety and public health. The only charter of the NRC is safety and health. Congress may have a wider responsibility to consider other issues, but to respond to your question, they would have to be greatly subsidiary to safety and public health.

Senator BREAU. Do you know if New Hampshire had originally submitted or participated in the design of a safety emergency plan for the Seabrook facility?

Senator HUMPHREY. You mean an evacuation plan?

Senator BREAU. Evacuation plan.

Senator HUMPHREY. I'd better let State authorities respond to that, if you don't mind. It's a very complicated situation.

Senator BREAU. Okay.

Senator?

Senator REID. No questions, Mr. Chairman.

Senator BREAU. Senator, we appreciate your testimony and look forward to continuing to work with you on this issue.

Senator HUMPHREY. I thank you.

Senator BREAU. Thank you very much.

Other Senators may be coming in to testify. We will try to take them when they come in, but until they do appear we will go ahead and start with the Government agency panels. We will begin with the Director of the Federal Emergency Management Agency, FEMA, Mr. Julius W. Becton, Jr., accompanied by some of his staff whom he will identify for the record.

Mr. Becton, we welcome you and are pleased to receive your testimony.

STATEMENT OF JULIUS W. BECTON, JR., DIRECTOR, FEDERAL EMERGENCY MANAGEMENT AGENCY ACCOMPANIED BY DAVID McLOUGHLIN, ASSOCIATE DEPUTY DIRECTOR, FEMA; AND SPENCE W. PERRY, GENERAL COUNSEL, FEMA

Mr. BECTON. Thank you, Mr. Chairman. I am pleased to appear before this subcommittee to discuss FEMA's radiological emergency preparedness—REP—program. I have with me the Deputy Associate Director for State and Local Programs and Support, Mr. Dave McLoughlin, on my right, and my General Counsel, Mr. Spence Perry, on my left.

My remarks today will cover the following topics: a brief overview of FEMA's REP program; a summary of current REP program issues; some comments on lessons learned from the Chernobyl accident; implications for the REP program and program management plans for the next two years, and a comment on the NRC's proposed rule change affecting offsite emergency planning at commercial nuclear powerplants.

The prepared and longer statement has already been submitted to the subcommittee, and I am requesting that it be entered into the record as our statement.

Senator BREAU. Without objection, we will make it part of the record.

Mr. BECTON. As you stated, sir, in December, 1979 the President assigned FEMA the lead role in coordinating offsite radiological emergency preparedness activities after the Three Mile Island accident. This assignment was in keeping with our general mandate under Executive Order 12148 to coordinate Federal emergency management activities for all types of disasters and emergencies. I would like to outline the context of program procedures and philosophy in which the REP program is managed.

The primary concern of FEMA's REP program is public health and safety around nuclear powerplants, and we will repeat those phrases many times this morning. FEMA works to achieve this goal through an evaluation of plans and preparedness under the process published at 44 CFR 350. This 350 process is based on a formal submission by the Governor of a State and local plans for the Emergency Planning Zone around a specific commercial nuclear powerplant.

The evaluation process includes participation by a Regional Assistance Committee, chaired by FEMA, and including officials of nine Federal agencies. This committee reviews the plans and its members render advice on their particular area of expertise. The plans are reviewed against the criteria of a guidance document developed jointly by FEMA and the NRC, with full public participation. It encompasses the standards for developing and evaluating licensee, State, and local government radiological emergency planning and preparedness. The appropriate FEMA Regional Office coordinates the planning review and assures that an exercise is conducted to adequately test the plans. It also holds a public meeting to inform interested parties of the content of the plans and what would be expected of the public in the event of an emergency at the plant and to seek their input. The plans are approved by FEMA if a determination is made following appropriate exercises that there is reasonable assurance that the health and safety of the public living in the vicinity of the plant can be protected. However, the process does not end with the initial approval. The State and the affected local governments must continue to keep plans updated. They must also participate in periodic exercises with the utility as a condition of continued FEMA approval.

FEMA and NRC have also signed a Memorandum of Understanding. This MOU calls for FEMA to provide NRC with interim findings for its use in the licensing process. The MOU permits NRC to request and obtain such findings from FEMA based on the review of plans currently available to NRC, including utility plans. These interim findings are a snapshot in time of the preparedness posture of a given site.

FEMA uses information developed under both of these processes to fulfill its role as advisor to the NRC on offsite safety around nuclear power plants. It is NRC, not FEMA, that makes the final decision on the adequacy of offsite safety.

Because the REP program is a dynamic one, issues of special interest have arisen from a variety of sources, ranging from exercise evaluations and plan reviews to licensing hearings. Due to FEMA's role in emergency preparedness, we have focused in detail on several issues. I would just mention them briefly, although they are covered in more detail in my prepared statement. We would be happy to discuss them in further detail later if you desire.

First, FEMA plans to examine specific concerns associated with sheltering as a protective action option. To date, more emphasis has been placed on evacuation than sheltering as a protective measure in the event of an accident.

Next, FEMA has devoted a lot of attention to the generic alert and notification system standards and evaluations arising from the Shearon-Harris Atomic Safety and Licensing Board proceedings

concerning nighttime alerting. The resolution of this issue by the NRC Commissioners could have a significant impact on the design and operation of alert and notification systems at all commercial nuclear power plants.

Third, FEMA has been involved with the NRC, the Department of Energy, the State Department, and the nuclear power industry in activities related to the Chernobyl nuclear power plant accident.

Fourth, we have also initiated activities to establish greater consistency in our regional review and evaluation of State and local government emergency planning and preparedness, especially with regard to their participation in exercises. To achieve that goal we are, one, developing a consolidated REP exercise manual; two, revising our exercise methodology based on its use since 1983; and three, conducting a standardized course to train REP exercise evaluators.

FEMA and NRC will continue to work closely to address these issues as they arise in the REP program. Current concerns include participation of State and local governments in radiological emergency preparedness, and a proposal provided to the Congress on funding 50 percent of the REP program costs through the assessment and collection of fees from NRC-licensed utilities.

FEMA sent a feasibility study on fee collection to the Congress on March 19 of this year. The Administration's proposed legislation on that issue was sent to the Congress last month, on 16 April.

Another issue of recent interest has been NRC's proposed rule change on offsite emergency planning at commercial nuclear power plants. FEMA delivered its formal comments to the NRC on its proposed rule on April 28, 1987. A copy is attached to my statement for the record.

FEMA recognizes not only the authority but the need for the NRC to periodically adjust its regulatory framework. However, we are concerned with some of the possible ramifications of their proposed rule on FEMA's ability to perform its consultative role to the NRC. Whatever the outcome of the NRC rulemaking action, we shall continue to have close coordination and a good working relationship with the NRC.

In closing, I would like to emphasize that FEMA continues to give priority in the REP program to providing to the NRC findings and determinations on the adequacy of State and local government planning and preparedness around commercial nuclear power plants. In carrying out these responsibilities we believe that FEMA has made significant contribution to enhancing the capabilities of State and local governments to respond to radiological emergencies. Moreover, we believe the enhanced capabilities of State and local governments resulting from their participation in the REP program contribute significantly to their capabilities to respond to all types of disasters and emergencies. This fact has been demonstrated in many emergencies, the most recent of which was the chemical fire in Nanticoke, Pennsylvania on March 24th of this year. I would be happy to discuss this with you in more detail if you wish.

In conclusion, we believe that communities participating in the REP program are among the best-prepared communities in the Nation to respond to any kind of disaster or emergency.

Sir, we are prepared to respond to your questions, and I've asked my colleagues not to be reluctant to speak up as experts in their areas.

Senator BREAU. Thank you, Mr. Becton.

Senator Reid?

Senator REID. Thank you, Mr. Chairman. I appreciate the remarks that you have made.

Mr. Chairman, when I served in the House I served on the Science and Technology Committee, which had oversight responsibilities of FEMA. Senator Gore chaired the subcommittee, and, frankly, we had a lot of problems with FEMA during those years. At that time I gave FEMA the benefit of the doubt and proceeded to do my best to help them out of their problems. But you know, the more I serve in government the more I find that Government agencies develop their own personalities. The problem with FEMA is that I haven't liked the personality that I found had developed.

We had a situation where, since 1983, various FEMA officials came before the Congress, both the Senate and the House, and listed as their number one priority a National Emergency Training Center that would be established in the western part of the United States. We were told, among other things, that it was of the highest priority; that the facility at Emmitsburg was overcrowded; that it was, in itself, in a state of emergency, that they had to get people out of there.

Well, we find recently that the FEMA officials have totally changed the story and they are no longer interested in a facility out there. That may be the case, but my point is, Mr. Chairman, and I make this as a broad statement, I personally, as one Senator am going to watch all the commitments that you make here in the hearing today. People have been questioning the NRC as to what they are going to do in a situation like this, and rightfully so. But now that FEMA is involved I'm going to watch very closely also, because my past experience with FEMA has not been a good one.

That's all I have, Mr. Chairman.

Senator BREAU. Thank you, Senator Reid.

Senator Moynihan?

OPENING STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, U.S. SENATOR FROM THE STATE OF NEW YORK

Senator MOYNIHAN. Thank you Mr. Chairman. I have an opening statement that I would like to place in the record.

[Senator Moynihan's statement follows:]

OPENING STATEMENT OF HON. DANIEL PATRICK MOYNIHAN, U.S. SENATOR FROM THE STATE OF NEW YORK

Mr. Chairman, I thank you for bringing the Nuclear Regulatory Commission before us today, as we consider the sort of nuclear safety programs Congress ought to authorize. Senator Simpson and I have been wrestling with these issues since well before Three Mile Island, but the revelations of the past year have the appearance of being at least as significant for our consideration of the Nation's nuclear safety programs, and I look forward to working with you to sort them out.

Though this Committee—and indeed the Senate as a body—passed a bill in the last Congress to reauthorize the NRC, no such legislation was forthcoming from the House. The NRC has been operating without direction from its primary authorizing Committees since September 30, 1985. And not, it would appear, very well.

Congress recognized that the old Atomic Energy Commission was both advocate and regulator for nuclear power—and that such was not proper. We abolished it. We intended, and indeed we still do intend, that the NRC should be an impartial guarantor of the public safety. From all appearances, the behavior of Commissioners, staff, and industry alike calls the success of our efforts into question.

The business of the Nuclear Regulatory Commission is not to protect the finances, reputations, or personnel of the utilities. Recent allegations and statements by members of the Commission appear to indicate some doubt on this matter. If we do no more today, we must set this straight.

The Department of Justice is now investigating Mr. Roberts, a member of the Commission. It is alleged that not only did he leak a sensitive internal NRC document to an executive of a utility that was to have been the target of an NRC investigation, but that he displayed gross errors of judgement—at the very least—in his handling of the matter after it was brought to his attention. And Senator Glenn, a careful and thoughtful member of this body, has suggested that Mr. Roberts may have lied to Congress about it.

The NRC's Executive Director of Operations, Victor Stello, is also under fire. His impartiality has been questioned by intervenors in the Shoreham licensing proceeding, and allegations of coziness with industry are the reason. The coaching of the Tennessee Valley Authority's Admiral White on how to answer official inquiries from the Commission is but one example.

These troublesome matters suggest the NRC's central mission is not well understood by those who are charged with pursuing it. And just as clearly, there is—at the very least—an attitude problem among some of the nuclear reactor operators the Commission is supposed to be overseeing. The NRC row tells us that there was a consistent, long-standing pattern of reactor operators sleeping in the control room of the Peach Bottom nuclear power plant, not 40 miles from Three Mile Island. That we had sleeping operators is bad; that the Commission only discovered it because of an anonymous tip is inexcusable.

But perhaps the most urgent matter now before the Commission is the proposed change to the NRC's off-site emergency planning rules. There is no better example of the Commission's confusion over what it is about than this. The Chairman of the Commission has stated that he wished to entertain the staff proposal because he didn't think it was fair to the utilities that own the Shoreham and Seabrook plants that their full-power licenses were being held up by local opposition.

Mr. Chairman, I am sure Admiral Zech is an honorable fellow, but he does not appear to understand his job, and his confusion appears to be broadly shared within the NRC.

The current proposal is essentially this: that the Commission may consider, in certain cases, granting nuclear operating licenses to utilities that cannot provide reasonable assurance that the public can and will be protected, if the failure to provide that reasonable assurance is not their fault. It means abandoning the fundamental safety standard of reasonable assurance of public protection in favor of a requirement that the utilities simply try.

The Commission might as well try and repeal a basic law of physics—whether or not we like it, it is an elemental fact that we cannot assure the public safety at nuclear power stations without some degree of cooperation from state or local government. I am no expert on emergency planning, but neither are the Commissioners. I urge them to listen with great care, not only to my colleagues on the Subcommittee, but also to their colleagues at FEMA, who know what they are talking about.

Trying is just not good enough. And it is absolutely, categorically not the business of the Nuclear Regulatory Commission to place fairness to utilities ahead of protection of the public. That is what seems to be happening to the NRC, and such must not be allowed to be. We need reasonable assurance of public safety more than we need reasonable assurance that any nuclear plant that can be built can be opened.

Such behavior is indicative of an erosion of attitudes and priorities that can not be allowed to continue. We may or may not change the NRC in a fundamental fashion; we may or may not add a new oversight structure to it. But we must see that this latest fiasco is carried no further. If the Commission will not reject this emergency planning proposal, the Congress surely will.

On the first day of the 100th Congress I introduced a bill that will do so—S. 40, the Atomic Safety Act. I am pleased to say that half of the members of the Environmental and Public Works Committee are sponsors of the measure, and that this measure was introduced in the House yesterday by the 3 Long Island Representatives for Suffolk County as H.R. 2279.

It is by no means a radical proposal. It simply requires the application of the existing safety standards in every case, and makes the NRC base its licensing decisions on findings by FEMA on the adequacy of emergency plans. In nearly every case, this is current practice. But at the Shoreham plant on Long Island, FEMA has said that it does not have sufficient information for a finding—and the NRC proposes to make its decision without benefit of their expert judgement. The NRC is, for today, responsible for nuclear safety. My bill would not change that. But it would get the NRC out of the business of second-guessing FEMA on matters within FEMA's expertise.

I would hope that we learned from the Three Mile Island disaster. We wrote the current emergency planning rules to reflect our experiences there. It defies the imagination that a year after a vastly worse accident in Chernobyl, our nuclear safety agency seems to forget—or ignore—what was learned scarcely 8 years ago.

Let me recall the principal finding of the President's Commission on Three Mile Island:

"To prevent nuclear accidents as serious as Three Mile Island, fundamental changes will be necessary in the organization, procedures and practices—and above all—in the attitudes of the Nuclear Regulatory Commission and, to the extent that the institutions we investigated are typical, of the nuclear industry.

I look forward to these hearings, Mr. Chairman, because the Nuclear Regulatory Commission has a lot of explaining to do.

Senator MOYNIHAN. Welcome, General Becton, to our hearing, and Mr. Perry, Mr. McLoughlin.

The thrust of my queries, Mr. Chairman, and I think this is the time to begin asking questions if I can, has to do with the new rule which has been proposed by the NRC with respect to REPs, radiological emergency plans, which leaves the Federal Emergency Management Agency out of this operation altogether.

I think as this committee knows, and I am sure that General Becton and his associates know, that the Atomic Energy Act, which was adopted in 1954, spoke of many things. It spoke of national defense, national security, free enterprise; it spoke of everything but safety. Safety was not thought to be a problem, partly because it was a new technology. We were only beginning to learn about it. Well, we have since learned that there are real problems. We had a very near disaster at Three Mile Island in the 1970's, and in this decade we've seen the Soviet Chernobyl event, which General Becton referred to.

I am now in my 11th year in this committee, and I know very well what our concerns were when we dealt with the Three Mile Island inquiry; Senator Hart was chairman. The most conspicuous fact we learned was that had there been the meltdown—which clearly was possible—had there been the radiation escape that clearly was possible, there was no provision of any kind to take care of the nearby populace. None. And that nearby populace could have extended to half of the State of Pennsylvania, and that was why we began saying that there has to be emergency plans, and that's why you have moved forward.

Suddenly, the NRC has decided to reverse the clear purpose that I recall from those days of associating FEMA with the emergency plans which you have been associated with until now. Some of us have introduced the Atomic Safety Act to balance the Atomic Energy Act, requiring that FEMA be involved in any evacuation plan, and make the judgment about whether it is feasible. Then the specific issue that comes about is whether you can do something like this when the State and local governments are not participating.

Let me ask if I may, General—you've invited us very generously and typically to ask your associates to speak up, and I wonder if I could ask Mr. McLoughlin, who is your Director of Planning, just a few questions. Is that all right with you, sir?

Mr. BECTON. Certainly.

Senator MOYNIHAN. When did FEMA become aware of the Nuclear Regulatory Commission's emergency planning rule change?

Mr. McLoughlin. Senator, the first call came to our General Counsel shortly before Christmas.

Senator MOYNIHAN. So that would be well after the NRC had been developing it?

Mr. McLoughlin. That's correct, and we had no substantive input to the preparation of the rule.

Senator MOYNIHAN. Mr. Chairman, may I just call your attention to this? Here's the Federal Emergency Management Agency which we had thought we put right in the center of emergency planning. The NRC comes along, decides to take it out, and keeps it a secret.

You had no substantive input whatever into their proposed rule change?

Mr. McLoughlin. That's correct.

Senator MOYNIHAN. That's a scandal. It is as scandalous as some of the behavior we saw in this Chamber yesterday.

I direct the question to you because in General Becton's testimony he appends your comments on the proposal, which was sent to Mr. Chilk, the Secretary of the Nuclear Regulatory Commission, and by you as Deputy Associate. Could you describe the substance of your comments?

Mr. McLoughlin. Senator, the first thing we tried to do in those comments was to acknowledge that the NRC is the responsible agency for licensing nuclear power plants. That is not a FEMA responsibility and we wanted to be sure that was recognized and we acknowledged it. Once we did, we did express some concern and tried to limit our comments to the issue of what FEMA could do relative to our advisory role to the NRC, and the impact that the new rule would have on our ability to perform that advisory role.

Essentially, we pointed out that we had great concern about the absence of State and local government involvement in the preparation of emergency plans. Concern is based on the fact that the 350 rule process we have in place does indeed require that participation. Without that we would not be in a position to make an adequate judgment on the reasonable assurance of offsite safety.

Senator MOYNIHAN. I'd like to just press you, if I can, because that seemed to be a very clear statement. Let's make sure we get it clear.

You expressed your great concern that State and local governments were not necessarily going to be involved in the plans that the NRC would approve? Would you as a professional, which is what you are in this matter, would I take it that you would assume it very unlikely that an effective emergency plan could be fashioned, and in any event carried out, without the involvement of State and local governments?

Mr. McLoughlin. Senator, it would be inappropriate for us to close the door on any possibilities, and certainly, we don't want to do that. We do indeed need to keep an open mind with respect to all

of the options that the NRC presents to us for review. However, it is true that in our view in working with the current operating plans and certainly with the Shoreham situation, we have not envisioned a situation yet in which the absence of State and local government in the participation in the plan and in the subsequent exercise would permit us to make a finding of reasonable assurance.

Senator MOYNIHAN. Let me see if I just get that right. You're going to keep an open mind to any possibility. That's a good first principle of any planner, but up until now it had not occurred to you that it would be possible to put together and carry out an emergency plan without the participation of State and local government?

Mr. McLOUGHLIN. We have not found an instance yet in which we would be comfortable in making——

Senator MOYNIHAN. Right. I'm not trying to press you, and I know that there's something called the Office of Management and Budget which reads these things, but let me put it this way. What arrangements would you make to deal with fire emergencies that do not involve the local fire department? They would be hard-pressed, wouldn't they?

Mr. McLOUGHLIN. Senator, certainly, there are private sector——

Senator MOYNIHAN. Not many private fire departments around. We've learned there are some private armies around, but not many private police forces around, you know? Do you know of any private State troopers?

Mr. McLOUGHLIN. No.

Senator MOYNIHAN. If you do, will you let us know?

Mr. McLOUGHLIN. I think I would agree with the general thrust and sense of your question. It's simply that we're not in a position, as I said earlier, to close out any option. But it is difficult to envision a situation in which the absence of State and local government would permit us to make a reasonable assurance finding.

Senator MOYNIHAN. I think that's very candid. I think that's all you could say as the professional. You obviously have to keep any possibility open in your mind, but none instantly occurs to you.

I'd like to continue this, Mr. Chairman, if I don't monopolize it.

Senator BREAU. We'll come back to you, certainly.

Senator WARNER.

Senator WARNER. I thank the Chair very much.

First, Mr. Chairman and members of the committee, I want to pay a special recognition to General Becton. It's been my privilege to have been associated with him when he was in the Department of Defense, where he rose to be a three-star General, and now this the second chapter of his distinguished public service career.

Mr. BECTON. Thank you, Senator.

Senator WARNER. This Senator feels you've discharged your public trust very ably.

Mr. BECTON. Thank you, sir.

Senator WARNER. General, we're focusing here today on two States, two plants, but as I look at the broader picture, there are 107—or thereabouts—operating plants in this country. If similar situations to those in this confrontation between the States and local communities and the Federal authorities were to develop else-

where in America and this pattern were to be pursued, the whole industry could be shut down. Is that not correct?

Mr. BECTON. I cannot say the whole industry would be shut down, but I would say—

Senator WARNER. Theoretically each plan could eventually be stopped because it now takes up to 2 years for an operating plan to be reviewed. Isn't that right?

Mr. BECTON. It would make it very difficult for us to come up with reasonable assurance that the public health and safety could be protected.

Senator WARNER. And each 2 years you have to look in an operating plan in a comparable way to this situation?

Mr. BECTON. That is correct.

Senator WARNER. So while these two issues—that is, the issues with these two States—are very serious, this thing could spread like an epidemic across the United States.

Mr. BECTON. The possibility is there, sir, but there has been no indication that that would be the case.

Senator WARNER. I thank you, sir.

Thank you very much, Mr. Chairman. This concerns me greatly because while there may be merits in these particular cases, I am concerned that this particular format could be followed right across the United States.

Senator MOYNIHAN. Would my colleague yield for just a question?

Senator WARNER. Yes.

Senator MOYNIHAN. To my mind, that's a perfectly legitimate concern. But I would ask, does he recognize that those of us who share additional concerns are only asking that the Federal Emergency Management Agency be involved in the decision process?

Senator WARNER. I followed that point very clearly. But let's hope that the local and State communities can get involved and perhaps reach a resolution.

Senator MOYNIHAN. But here are the experts that argue as to whether this thing is going to work, and we want them as part of the decision process.

Senator BREAUX. Mr. Becton, let me ask you a couple of questions.

FEMA's comments on the proposed rule said that the State and local governments are likely to respond in an actual emergency because State law requires them to do so, and also because that would—presumably—be the natural reaction of Government officials in times of emergency. Even if the premise is valid, the ad hoc nature of their response could have unfortunate consequences. It does not assure that the full range of necessary actions will be taken.

I find those to be pretty strong statements about the proposed rules. You're talking about the fact that at best, it would come up with an ad hoc response. Is your agency satisfied with an emergency evacuation plan that your agency terms "an ad hoc response" to something that is potentially as serious as a nuclear accident?

Mr. BECTON. Clearly, we're not satisfied with that ad hoc arrangement.

Senator BREAU. Would you be willing to sign off on something that you had publicly said would be, at best, an ad hoc response, and say that we can certify that this in effect meets the standards that the Congress has established with regard to reasonable assurances of public health and safety being protected?

Mr. BECTON. Senator, if I may point out, that statement was made with the full understanding that we can assume that certain things will be accomplished, but we cannot grant reasonable assurance on assuming. Our comment of "ad hoc" was designed to say that unless we have something that can be tested or evaluated or have some historical demonstration, then we would have a difficult time in granting reasonable assurance.

I'd like for Dave to add to that, if he would.

Mr. McLOUGHLIN. Mr. Chairman, the specific thrust of that part in our comments to the NRC was to indicate that we would not want to go back to a situation like we had at Three Mile Island, to an ad hoc response. We would not be likely to ever find reasonable assurance simply on the basis of an ad hoc response.

Senator BREAU. Let's not look at the situation prior to Three Mile Island. Let's look at it today. You have two reactors where the State and local governments apparently have decided not to participate in helping you develop a plan. You can develop a plan which you assume, which you hope, which you think the local governments may participate in implementing in the time of an emergency. You have termed that "an ad hoc situation."

My question is, in the light of today's situation is that enough for you to be able to sign off to the Congress that that type of ad hoc situation guarantees a reasonable assurance of protection to the public health and safety?

Senator REID. Would the Chairman yield?

Senator BREAU. I'd be happy to.

Senator REID. I have a question that is an add-on to that question.

Within FEMA, do you have the expertise to prepare an evacuation plan?

Mr. BECTON. We have the expertise but we don't have the people to prepare evacuation plans throughout the country.

Senator REID. Thank you, Mr. Chairman.

Senator BREAU. Mr. McLoughlin?

Mr. McLOUGHLIN. Mr. Chairman, if I understood—I need to ask for clarification before responding to your question. You seem to believe that FEMA would prepare a plan for response. Is that correct?

Senator BREAU. No, not at all.

Mr. McLOUGHLIN. I'm sorry.

Senator BREAU. What I'm trying to say, that in commenting on the proposed rules, the rules that are before the general public today, you say that this proposed rule would in effect sanction extensive, across-the-board, ad hoc responses.

Mr. McLOUGHLIN. Yes.

Senator BREAU. Can you tell the Congress that a situation that you have termed "an ad hoc response" that you say assumes that the State would be likely to respond—that it is possible to create a

plan under those circumstances that FEMA would be able to say meets the standards of reasonable safety for the public?

Mr. McLoughlin. No, sir. By the use of the word "ad hoc" we were talking about a situation in which there were no planned actions, or there would be no planned actions. Therefore, neither State nor local government, nor the utility, in effect, had made plans. Certainly we expect most State and local governments to respond in an actual emergency, in fact we have been directed by both our Appropriations Committee in the Senate and in the House to make that assumption—that State and local governments would respond in an actual emergency—and we believe they would. But even with that assumption, it would not permit us to make a finding of reasonable assurance because we have nothing to evaluate. All of it would be ad hoc rather than a planned response.

Senator Breaux. I guess what you're telling this committee is that you can review the plan that a utility proposes, for instance, and you can say that this plan is a plan that would meet those matters that have to be attended to in the event of a national emergency; but without the participation of State and local authorities you really can't say whether it's likely to work or it's not likely to work?

Mr. McLoughlin. That's correct.

There's another significant factor that's involved in this, Mr. Chairman. When the NRC asked us to review the utility plan for Shoreham, we reviewed that plan under the set of planning standards that were developed for our 350 process, which assumes State and local participation. Now, the problem we had in reviewing the plan is that we did not have a set of standards for reviewing a utility plan. That's identified very clearly in our comments to the NRC. What we did in lieu of that, then, was to review the utility plan under the set of planning standards developed for State and local plans. Obviously, we were immediately going to run into the authority question, which we knew up front that we would.

Senator Moynihan. The authority question, sir?

Mr. McLoughlin. Pardon?

Senator Moynihan. The authority question?

Mr. McLoughlin. The authority question, whether or not the utility plan would indeed have the authority to carry out certain planned actions, such as police actions, for example, law enforcement actions.

Senator Breaux. All right.

We need to ask some more questions of FEMA. Our colleague, Senator Kennedy, has arrived and we had indicated that we would take our colleagues when they arrive. If this panel would just excuse themselves we'll bring you right back, but we do want to take Senator Kennedy's testimony at this time.

Thank you, gentlemen.

Senator Kennedy, we are pleased to have you here. We understand you were holding hearings early this morning, about 1:00 o'clock. We're real pleased to have you before the committee and we're proud to take your testimony.

STATEMENT OF HON. EDWARD M. KENNEDY, U.S. SENATOR FROM
THE STATE OF MASSACHUSETTS

Senator KENNEDY. I had an extremely late markup last night that started at about 12:30.

Mr. Chairman, I want to commend you for convening this hearing to review the critical issue of State and local participation in emergency evacuation plans at nuclear power plants. I'm especially pleased that Bill Lord, who is Chairman of the Board of Selectmen in Amesbury, Ron Johnson, Chairman of the Board of Selectmen in Merrimac, and Steve Rosenfeld, the Chief Legal Counsel to Governor Dukakis have been invited to testify and the views of Massachusetts will be well represented by these distinguished leaders of our State.

I oppose nuclear energy. Unlike other nations, America is blessed with abundant alternative energy sources and conservation measures that are readily available to meet all energy needs and to do it wisely and safely. Our efforts are far better spent exploring and developing these alternatives rather than debating ways to minimize the risk of maximum nuclear catastrophe in our communities.

Ten days ago the world marked the first anniversary of the most catastrophic events in the history of nuclear power plants, the tragedy at Chernobyl. In my view, that accident is a vivid reminder that man has not sufficiently mastered the technology of the atom to justify the siting of nuclear power plants anywhere on earth, let alone in highly-populated communities.

I hope that our Nation will take a more active role in the year ahead in setting an example in the international nuclear debate. We cannot permit a Chernobyl to occur anywhere in the world again. One Chernobyl is one too many for our planet.

In 1979 we received a sobering lesson of our own in the accident at Three Mile Island. During the exhaustive review of that near-catastrophe, it was evident that the laws of nuclear safety did not adequately protect our citizens or our communities, and as a result wise and responsible changes were adopted that ended the complacency. Congress amended the Nuclear Reauthorization Act to require emergency evacuation plans, and the Nuclear Regulatory Commission recognized that its primary responsibility was public health and safety. It adopted regulations that faithfully carried out the intent of Congress by requiring State and local governments to participate in the planning process and demonstrate that the plans were workable before a license could be issued.

The issue of State and local participation was debated at length on the Senate floor in 1979 during the consideration of that act. An amendment to eliminate the State and local requirement was defeated because the Senate recognized the danger it posed to our communities. Nothing since 1979 has eased the need for the strong protections established in the aftermath of Three Mile Island, and surely we'll be tempting fate to relax our guard on Chernobyl. In fact, the only change since 1979 is that new members have been appointed to the Nuclear Regulatory Commission who seem ideologically committed to deregulation of nuclear power, whatever the cost to local health and safety.

The Commission is proceeding down an irresponsible and unacceptable path, and if the courts don't stop it, Congress should.

Massachusetts and New York happen to be at the forefront of this debate, but the crisis could have occurred in any other State and all States deserve to be concerned. Last year Governor Dukakis of Massachusetts, with the full support of each of the six Massachusetts communities within the 10-mile radius of the Seabrook plant, refused to approve emergency evacuation plans for the communities. The Governor of New Hampshire disagrees; he is apparently prepared to label his State's plan as adequate, but Massachusetts is not.

These developments are hardly a surprise to anyone. Opposition to nuclear power is nothing new in Massachusetts. If New Hampshire wanted Seabrook to operate, they should have built the plant further from the Massachusetts border. We don't want it in any event, and we certainly don't want it unless it's safe.

Massachusetts did not reach its position either lightly or ideologically. After two years of extensive study, public hearings and expert advice, Governor Dukakis concluded that no plan can safely evacuate the Massachusetts communities if a major accident occurred at Seabrook. And if the Chairman or any other member of this committee wants a graphic demonstration of the truth of that conclusion, I invite you to join me on a bumper-to-bumper drive from Amesbury to Seabrook on any workday morning or afternoon during the summer.

At every stage, Seabrook has been constructed despite vehement objections from the citizens and officials of Massachusetts. From the very beginning, Seabrook authorities chose to ignore concerns that a nuclear power plant should not be built in this populated portion of New England. Now we have reached the point of no return. The nuclear industry went into this debate with its eyes open, and now it is bent on subverting the Commission in order to circumvent the safety obstacles in the path to profit and full power licensing.

A separate and equally unseemly attempt by Seabrook to eliminate Massachusetts from the process was temporarily thwarted recently when the Atomic Safety and Licensing Board refused to permit the radius of the Emergency Evacuation Zone to be reduced from ten miles to one mile, and that was an indefensible position and it became preposterous after Chernobyl. The city of Prityat, one and a half miles from the reactor at Chernobyl, stands as a reminder of the folly of nuclear power. Prityat was a planned Soviet city, created to service the nuclear plant which was sited in a totally rural setting, not even remotely comparable to Seabrook. Today, Prityat is a radioactive ghost town that should be haunting every deliberation of the NRC and the Congress on the evacuation issue.

Despite this unforgiving lesson of 1986, the Seabrook owners rushed to the NRC in 1987 to argue that a one-mile radius is a sufficient evacuation zone. Suffice it to say, the Board recognized the absurdity of that proposition and the Commission, the Congress and the courts should do the same with the utility's reckless scheme to compromise the evacuation plan.

Actually, the Chernobyl evacuation took place in three stages. The day after the accident, thousands of buses were used to remove

50,000 people from Prityat and villages in the six-mile zone. On the sixth and seventh day, 80,000 more people were evacuated from the 18-mile zone. Subsequently, additional evacuations took place outside even this zone, in the areas with the highest levels of radiation. We're talking here about a 10-mile zone which reaches six communities across the border of Massachusetts from Seabrook. But in a Chernobyl-type meltdown, the 18-mile zone would come into play and would include most of the Lawrence-Haverill metropolitan area, with a population of 300,000. We might as well try to evacuate New Orleans, Mr. Chairman.

That is both the unacceptable danger and the unconscionable challenge we face if NRC persists in its current reckless course. I urge the subcommittee to be prepared to act in our behalf on short notice when and if the need arises.

Mr. Chairman, I'd just take another moment or two of the committee's time to try and give you some visual idea of the location of the population. This is the plan—this area used to be the number one beach for New England. It is still one of the magnificent beaches on all of the New England coast. It's one of the most heavily used in the summertime. We're talking about a five-mile area. We're talking about tens of thousands of people that come up every single weekend. It is literally bumper to bumper through this whole area. Salisbury Beach right along here, up through Cape Ann, and all through this area is heavily utilized in the fall and in the summertime, let alone the busy other times. Newburyport is one of the lovely areas, and heavily utilized, again, along the coastal area. This whole area here, during any of the summer period, is virtually gridlocked in terms of the ability to move, either in the mornings or the weekends, through that area. Plus generally there are increasingly developed areas with very significant populations. This is the Massachusetts border that comes right here, within a mile, actually, of the plant itself, just about a mile. And that is the interest of the Massachusetts communities in this area.

I would say, Mr. Chairman, going back over 12 or 15 years, this power plant has been on notice that there were these kinds of concerns. We had a very distinguished Attorney General, Frank Bellotti, raise these issues in the 1970's. I raised them as well during the course of the 1980 campaign. These communities, the people in these areas, the plant itself have been on notice. We don't come into this newly, Mr. Chairman, and I would hope if you're going through these areas, when you have some opportunity to examine, if you will, from the local officials here who can give you a much better description of the area's various access routes, the roads, the Interstate, the various timing periods—even taking this Interstate now, 95, it will give you an excellent idea about how this particular plant is located in one of the significantly-populated areas in southern New Hampshire in the border area. It is something which—the position of the members of those communities certainly should be taken into consideration. I think they were with the excellent presentation that was made by Governor Dukakis, and the time and effort, Mr. Chairman, that went into that.

I would hope your staff would have an opportunity to review the time and effort that went into the preparation of the State position. And I think, with any fair examination, that you would feel

that that was about as comprehensive a review that has been made by any State, not only in the public hearings but in the various scientific materials that were examined and the list of expert witnesses and the detailed study of transportation routes and the whole examination of demography in that area. It is really an extraordinary effort and experience, and I just know from my own visits with the Governor the amount of thoughtful consideration that he gave to this question. I believe that he went to this open-minded in making his judgment, and he came out of it absolutely convinced about the justification of his position.

I appreciate again the opportunity to make this presentation to the committee. I know the Chairman and the other members of the committee are familiar with our situation there so I don't want to delay the committee any further, but I'm grateful to you for letting me present what I think is a matter of enormous importance and consequence for the people in this region. And I think more importantly, how the Federal Government is going to deal with an industry which has so much potential danger in terms of the health and well-being of the people in our country and how that agency is actually going to deal with the people. That's what we're really talking about here this morning.

Senator BREAU. Thank you very much, Senator Kennedy, for your presentation and your involvement in the issue.

Let me ask, if you could, to comment on one of the points that FEMA was making prior to your testimony with regard to the NRC's proposed new rule that they have. FEMA's comments were that

The proposed rule incorporates, as a basic premise, the assumption that the State and local governments are likely to respond in an actual emergency because the State law requires them to do so, and also because that presumably would be the natural reaction of government officials in the time of an emergency.

Do you have any comments on that?

Senator KENNEDY. Well, I think that's putting the gun to the head of someone and asking whether they're going to jump before the trigger is pulled. I mean, that's the attitude that evidently is being considered by the Nuclear Regulatory Commission. This issue about the role of the Governors and the roles of the States were debated at some length. I was in the Senate at that time. It was a reasonably close vote. There were differing views that were presented, but there was, in remembering that debate, a strong feeling of many Members of Congress that the Governors have special responsibilities under the Constitution for the health and safety of their constituencies. We're not talking about just an absolute veto capability, but what we're talking about is that they have an important and fundamental and basic authority and responsibility, and I think that there's a reasonable position for the NRC to look beyond just the findings of a State and find out whether those findings of the States are based upon a thoughtful and comprehensive and responsible review. And it certainly appears to me that when the NRC's proposed regulation to effectively vitiate that capacity and capability and say, well, look, when we finally make that decision they're going to have to hop, is—it may be ultimately, in the final action, if that kind of arbitrary were going to be taken, I think that obviously anyone that's responsible—in our case, Gover-

nor Dukakis—is going to have to do the best that they can. But it's only going to be after a very prolonged effort that will be made both in the courts and legislatively to try to resist what would be, I think, a very arbitrary and harsh and unjustified governmental action.

Senator BREAUX. Thank you, Senator.

Senator Simpson?

Senator SIMPSON. I've been waiting to get the Senator in this position for years.

I have a special relationship with our Senator as ranking member of the Subcommittee on Immigration. I chaired that, and you were the ranking member, and now you have the gavel again. It was more fun when we had the gavel, I thought, anyway.

I want to thank you. I know your rich feeling about this; you shared that with me before. We're stuck with the ancient problem that we have 108 reactors in the United States. They're here, and we can't even move 3,000 tons of garbage around the world, and we've got 43,000 metric tons of high-level waste at these 108 utilities. That's one thing we've got. We won't deal with that one very well. We don't put it anywhere. We won't let it be transported. It's a vexing thing for us; I know you know that. And indeed, one of the things we've tried to avoid all those years—and you were in that debate; I remember it well—was to avoid having the hostage problem, and now we have the hostage problem. That makes it a difficult thing for us. We have to extricate ourselves from that.

I thank you for sharing your views. They are always helpful and I appreciate it.

Senator BREAUX. Thank you, Senator Simpson.

Senator Symms?

Senator SYMMS. No questions, Mr. Chairman. I'm sorry I got here a little late, but I'll read the testimony and catch up with it here. Thank you, Senator.

Senator KENNEDY. I thank the Senator.

One point I might mention to the Senator from Wyoming, it's been possible to convert this plant to coal. That was recommended as many as 8 years ago, even further than that, by myself and many others. Now, there are those that say, well, in terms of coal, does New England want this kind of a coal facility? We have had a very positive experience in one of our communities, Fall River, that has developed a very new and important—as a matter of fact, in the late 1970's—coal plant down there that meets every one of the possible environmental concerns. There really were important alternatives that were offered for this particular facility in a responsible way by public officials over a long period of time. People aren't coming late to this. Members of the community were delighted to take those officials and bring them to other kinds of alternatives. This has been going on in our part of the world, Senator, for a number of years. And I think that always when we come back here and we say, well, we've finally got it, it's been paid for—you know, the consumers are going to have to pay for it, so that's another issue of who is going to bear the brunt on it; we're not getting into that today. But one thing I want to give assurances to the committee on is that constructive alternatives have been made available by thoughtful people.

I know that we're faced with the existing problems. We have about 12 or 15 percent of our own State energy as nuclear now, so we have some that have been successful and others which have had greater problems, so we are aware of it. We have lived with it. We come from a more densely populated area, but over this long process there have been thoughtful recommendations on alternatives that have come up. And many have felt that they would be just at the stage where they would complete it and then put the gun to the head of the various communities and government officials and call their bluff on it. And I don't think that that is the way the agency ought to work and I think that the views of the people in those communities ought to be considered.

I thank the Chair very much.

Senator BREAUX. We're going to take a 5-minute recess to address the situation that we discussed earlier and come right back. [Recess.]

Senator BREAUX. The subcommittee will please come to order.

We will continue with questioning of FEMA officials, if they would please come back to the witness table.

Senator SYMMS. Mr. Chairman, whenever it is appropriate I'd like to make a very brief opening statement.

Senator BREAUX. Why don't you go ahead now? We will let Senator Symms now be recognized. Senator Symms.

OPENING STATEMENT OF HON. STEVE SYMMS, U.S. SENATOR FROM THE STATE OF IDAHO

Senator SYMMS. Mr. Chairman, this is a subject that I'm very interested in. I know you had the NRC here yesterday, and I submitted my remarks for the record. We've had some very good success with the NRC in Idaho on many of the tests that they've done, and they've been very helpful, I think, to the industry.

But this morning I am pleased to have the opportunity to speak in support of the NRC's proposed rule change. The NRC has been assigned important responsibilities of making sure that the public health and safety and the environment are protected in a peaceful use of nuclear power. This seems to be a very difficult task, one that seems to grow more difficult and complicated every year. Although surveys show that most Americans, as well as the media, believe the NRC should regulate the safety of nuclear powerplants, some State and local governments do not agree. So we have a serious issue of hostage powerplants in the northeast which costs the consumers and investors millions of dollars a day.

I believe that NRC's proposed emergency planning rule modification is a responsible and a very responsive action to a problem. The law that led to NRC's present ruling on emergency planning was not intended to give State and local governments veto power in licensing of nuclear powerplants. Unfortunately, the NRC's initial regulations required that emergency plans can and will be implemented. It was the Commission's interpretation of this law that led to this situation. The change proposed by NRC will actually clarify the intent of Congress.

There is an attempt to characterize this as a States' rights issue; however, that is incorrect. Congress has clearly mandated Federal

regulation of radiological, health and safety matters. State and local officials are already involved in the nuclear reactor approval process every step of the way, from site selection to design, construction, licensing and start-up. Under the proposed rule change, State and local governments are still expected to play an important role in the development and implementation of emergency plans. However, it will make clear that Congress did not confer on these bodies the authority to veto the Commission's decision to issue an operating license for a nuclear power plant by refusing to participate in emergency planning. And I think that's a very important point that we've got to be strong about.

Thank you very much.

Senator BREAUX. Thank you very much, Senator.

Senator MOYNIHAN. Mr. Chairman, may I make a statement here?

Senator BREAUX. Certainly.

Senator MOYNIHAN. Mr. Chairman, with great respect for my friend from Idaho, I don't know where this word "veto" entered our vocabulary with respect to the task of dealing with an extraordinary new technology that has suddenly appeared among us and with which we are only just learning to deal.

Steve, I was saying yesterday that it seems to me that we are still not aware—this whole technology is so new. I remarked that the man who was standing alongside Oppenheimer at Alamogordo is still teaching his seminar at Cornell University. It's right in our own lifetime. The Atomic Energy Act did not mention safety. They didn't know there was a problem. The whole problem of nuclear waste, as I was saying for the benefit of our friend from Wyoming who likes this sort of thing—the remark has been made that we pay much too much attention to what goes in the front of this animal and not nearly enough about what goes out the end.

We didn't know we had a problem with nuclear waste. We aren't a society that knows how to deal with half-lives of 20,000 years. A half life of 20,000 years. We've got to figure out how to secure nuclear waste which has a half-life of 20,000 years, which is more than recorded life of any organized society.

The public utilities with an established technology of the turbine, which was invented around 1904 in Schenectady; coal burning boilers—the thermodynamics was done pretty well by the 1920's, and it's been an unadventurous place to live but a profitable one. We've worked out a system of these utilities and monopolies, public utilities.

Suddenly, instead of coal-fired, they've got this extraordinary event. I have met the woman whose husband put together that pile under the squash court in Chicago, and for the first time in history of man, energy came from a source other than the sun. For the first time. This is so new to us, and learning to deal with it is such a challenge that I don't think we should introduce notions of veto. I liked Mr. McLoughlin's statement earlier when he said, with respect to the NRC proposal, that they're never going to automatically close out any possibility because anything might turn out to be something. But he did say he had great concern about this. And the notion that there is some attempt to close down the nuclear industry on the part of States which Senator Kennedy spoke of—they

have nuclear power all over Massachusetts; we have nuclear power all over New York State, and there's one site in which we say, no, you can't get out of there if you're in trouble. And that's not a veto; that's called judgment, and it seems to me we should use that kind of word.

I thank the Chairman.

Senator SYMMS. If I might just say, though——

Senator BREAUX. Let's not forget we have a panel. We have to do some questioning.

Senator SYMMS. I'll be very brief, Mr. Chairman.

But I believe that veto is appropriate. The power that you're proposing to grant to State and local authorities, that they can reject these plans—I can't think of a better word than "veto." I think we all have a high respect for States' rights, but if we're going to hold powerplants hostage, either to the storing of the waste or the emergency evacuation plan and so forth, we can't have a nuclear industry in this country.

Senator MOYNIHAN. We have legislation in this country which we're talking about which does one thing and one thing only. It says the Federal Emergency Management Agency should be involved in the decision about whether an emergency evacuation plan is workable. Just that, General Becton, nobody else.

Senator BREAUX. Stay tuned for a lively markup session.

I'm trying to get some things on the record, so we may move to that point eventually.

Mr. Becton, have there ever been any instances where a State or a local government has withdrawn from participation in the emergency planning process for a fully licensed plant? If so, could you tell the committee how that situation was handled?

Mr. BECTON. Let me turn to an expert, Mr. Chairman, because I only joined the agency less than 18 months ago.

Senator BREAUX. That's fine.

Mr. McLoughlin. Mr. Chairman, there was one situation that I would explain to you. In the case of Indian Point nuclear power plant, the County of Rockland did withdraw their participation. Subsequent to that, the State developed a State compensatory plan which was exercised. Subsequent to that, the County of Rockland is participating.

Senator MOYNIHAN. I note that Rockland is on the other side of the Hudson River. They did do that, and then the State said no, no, no, no. These plants, Mr. Chairman, are about 20 miles from New York City, three of them; probably too close to that big an area, but the State said you can evacuate—I was talking about this yesterday—you can evacuate an area in the Hudson Valley. You can go north and you can go south and you can go east and you can go west, and you can jump in the Hudson and swim. You can't get out of East Long Island.

Senator BREAUX. What would FEMA's position be with respect to the emergency preparedness status of such plants if, in the future, a State or local government withdrew their participation in the biennial drills that are required? Mr. McLoughlin?

Mr. McLoughlin. Mr. Chairman, it's always difficult to make a generalized response on conjecture, but if there is an operating plant, the process calls for an annual certification and a biennial

exercise, and we make our continuing judgments—which we're required to do—on that basis. If indeed a State pulled out or a community pulled out—if a community pulled out and the State developed a compensatory plan, it might very well be that we could continue the reasonable assurance of offsite preparedness. On the other hand, if it goes too far and the State were to pull out and most of the communities were to pull out, it's likely that we may very well have to withdraw our reasonable assurance finding.

Senator BREAUX. Has FEMA ever considered the involvement of, say, in the absence of State or local government participation, the use of the National Guard for carrying out an emergency preparedness plan?

Mr. McLoughlin. Well, the National Guard essentially would be a State vehicle for responding to the emergency, and we would expect that the State would plan for that. If the State would not plan for it, we would then expect that the National Guard, in effect, would probably not be participating in it.

Mr. BECTON. Really, the only way the National Guard could be used, Mr. Chairman, is to be Federalized.

Senator BREAUX. Well, that's the point I'm asking the question about. Would that meet the need of a FEMA emergency plan, through the nationalization of the National Guard?

Mr. McLoughlin. There are two parts to that question, and I hope you will let me lay those out.

The Federal Government has a responsibility in any of these emergencies to support State and local governments in that emergency itself. We have a Federal Radiological Emergency Response Plan that is intended to provide for a coordinated total Federal Government response to support State and local governments. Now, that is on the books today and would be used for any incident.

Your question, I think, is more directed towards, would there be a Federal response plan in the absence of a State and local response? The answer is that FEMA has no specific authority to do that. We have generally taken the position that we don't believe that the Federal Government is close enough to every event that could occur with the 107 or 108 reactors that are operating today. The Federal response is likely to be too delayed.

Senator BREAUX. Let me just ask you the question with regard to a situation where we have a State and local government who refuses to participate in the plan, for whatever reason. Is it the opinion of FEMA, who is in charge of emergency management in this country, that plans can be devised or cannot be devised that would, without that local and State participation, meet the standards of the act which require a plan which would provide for the reasonable safety of the public in the event of a nuclear accident?

Mr. McLoughlin. Mr. Chairman, as I said earlier to Senator Moynihan's question, we need to keep an open mind with respect to situations that are presented to us, and evaluate each one on its own merits.

Let me say that there are situations right now in which we have supported a utility plan. There are places in the United States where a utility has done the great bulk of the planning itself. It has been adopted by State and local governments and there has

been a lot of training to bring State and local people up to the ability to perform the operations that are outlined in the plan. In that sense, a utility-developed plan adopted by State and local governments we have found to be a situation in which we could find reasonable assurance of adequate offsite safety.

Senator BREAUX. I guess you're saying to the committee that a utility-developed plan that's adopted by State and local governments can meet the standards. But the question is—and I guess you do not want to comment on it until it's presented—concerns a utility-prepared plan that, in fact, is not adopted by State and local governments? The question being; is it theoretically possible that a plan could meet the standards set out by the law in the absence of State and local governments adopting that plan or participating in developing it?

Mr. McLOUGHLIN. We have no standards for that particular situation right now, and it would be very difficult, I believe, Mr. Chairman, to make any positive statement on it.

Senator BREAUX. Any other questions of the panel?

Senator MOYNIHAN. Mr. Chairman, just again to say that yesterday Commissioner Carr made the point that, yes, a utility could develop a plan, and it might be very good indeed, but it assumes the cooperation of the local police authorities.

And on the question of the National Guard which General Becton mentioned, we are talking about two utilities here, as well as the general principle. New York State has a very strong attachment to the National Guard. The name comes from a regiment which was raised in 1824, when Mr. Lafayette returned to the United States, and he had been involved in the Garde National in France, so we named a special regiment for him, the National Guard, which is now the generic term for the militia in the 50 States and possessions.

The idea of our Guard, which is the New York State National Guard, which has fought in every war that we've been involved with in our history, suddenly being called out by the President to do something the Governor doesn't want done—oh, no, that won't happen. It will never happen.

General, you wouldn't want to see that happen?

Mr. BECTON. Sir, I wasn't suggesting calling it up. I was merely saying that it can only be used—

Senator MOYNIHAN. No, you were making the technical point that if the President were to Federalize it, yes; but generally, you wouldn't never want to see guardsmen—well, I shouldn't ask you that question. I'm sorry. You just do what the President tells you to do; I understand, as a General.

Senator BREAUX. Senator Simpson?

Senator SIMPSON. General Becton, about FEMA's position on this proposed rule, first I wonder if you would explain to me just how broad your position is. Are you saying that you object to the NRC's rule, both as it would be applied to a hostage situation involving a single State, like Shoreham in that dilemma, as well as a situation where one State's refusal to participate in emergency planning keeps a reactor from operating in a second State, which, of course, is the Seabrook situation?

Mr. BECTON. Sir, we are not opposed to the NRC rule. They are the authority. We're saying that we have concerns about our ability to provide reasonable assurance, given the rules that the NRC has specified. I would like for Dave to go further into that.

Senator SIMPSON. No, I really would like to have your views, sir. You've been on duty now for 18 months, and I think it is not right that we continue to defer to this gentleman. I would like to have your views. You are the Director. This is a very critical issue to the industry. I'm not a handmaiden to the industry; they give me a rating of 50 percent or something, which is great for me, but I want to know those answers from you, sir.

Mr. BECTON. Sir, I go back and say again that we are not opposed to the NRC rule. We have concerns about the implementation of those rules. We're concerned that when you make an assumption that a State and local government who in the past has refused to participate, that they will in the event of an emergency. My problem is—if we take two States as you suggest, side by side, if one State supports the development of utility plans for nuclear energy and we test through exercises those plans and find that there are negative findings, and we say that they have to go back—make a recommendation to the NRC that we cannot give an adequate reasonable assurance until they have corrected certain things, the adjacent State which has refused to participate in backing up utilities—we're saying that we cannot grant reasonable assurance based on an assumption that they would participate. That is our problem.

Senator SIMPSON. The thing that troubles me is that the President has taken a position publicly that he would support changes in the NRC rules to prevent one State from blocking the licensing of a nuclear plant in a neighboring State. He has said that publicly. It's the position he took in an interview with the Union Leader in New Hampshire. Do you agree with the President and his support for that rule, at least to address the two-State hostage issue? Because we believe that you speak on behalf of this Administration.

Mr. BECTON. Sir, I support the President clearly. But the President also said, I believe, that in addition to being fully supportive of the development of nuclear energy, he is also a full supporter of public health and safety. And as I read FEMA's charter, we are charged with giving a reasonable assurance finding to the NRC, because in the final analysis it's the NRC's role to make that judgment.

Senator SIMPSON. Well, yes. That's the NRC's principal mission, the public health and safety. And when they come to these decisions on the fact that it can be done this way or that way or through utility plans, it would seem to me that then you should be in a position to carry that out.

Mr. BECTON. Sir, when we can grant reasonable assurance based upon an exercise or evaluations of the plan, we will grant that. But we cannot grant that based upon an assumption.

Senator SIMPSON. Well, I think it's not granted just on the basis of plain old political heat and not wanting to take that heat. That's my view.

Thank you.

Senator BREAU. Let me ask this one point. I don't want to belabor this, but I think what we're having here is important.

In your opinion, Mr. Becton, who makes the final call? I think the language is along the lines that the NRC shall develop an emergency preparedness plan for evacuation in consultation with FEMA. Now suppose FEMA looks at the plan that's been prepared by a utility, and in FEMA's expertise it says, this will not meet the standards of reasonable assurance. In our professional emergency management activities with our experts, we think it cannot meet that reasonable assurance standard.

Is it your opinion that NRC could overrule that recommendation and say, thank you very much for your recommendation; we disagree with it and we're going to approve this plan and we're going to license this facility despite the fact that FEMA says, we don't like it, we don't think it meets the standard?

Mr. BECTON. As I understand it, sir, and as I read my charter, we are only consultants to the NRC. It is the NRC's responsibility and authority to make the ruling.

Senator BREAU. So whether you recommend no or you recommend yes, it's your feeling through the process and the statute that NRC makes the final call and could overrule either recommendation of FEMA?

Mr. BECTON. It is my understanding that that is correct.

Senator BREAU. Okay. Okay.

All right. Anything else? Steve, do you have any questions on this?

Senator SYMMS. No questions, Mr. Chairman.

Senator BREAU. We want to thank you. We may have additional questions from members that we would like you to respond to.

We'd like to welcome at this time the panel of nuclear utilities, consisting of Mr. Sherwood Smith, Chairman and President of Carolina Power and Light Company; Mr. W. Taylor Reveley, III, Attorney, Hunton & Williams; Mr. George Edwards, President and Chief Executive Officer of the United Illuminating Company.

Gentlemen, we welcome you. We are pleased to have you appear before the committee.

Mr. Smith, we have you listed first, if you would like to go ahead and present your testimony, we'd be pleased to take it.

**STATEMENT OF SHERWOOD H. SMITH, JR., CHAIRMAN AND
CHIEF EXECUTIVE OFFICER, CAROLINA POWER AND LIGHT CO.**

Mr. SMITH. Thank you, Mr. Chairman. I am Sherwood Smith, Chairman of Carolina Power and Light Company. We serve a large area in North and South Carolina; it's about 30,000 square miles, roughly equivalent to the size of Connecticut, Rhode Island, Massachusetts, New Hampshire and New Jersey. We serve an area that has about three million people. It's not as intensely populated in some places as those States.

We've been involved in the utilization of nuclear power to produce electricity for a long time. We built the first commercial plant in the southeast that came into service in 1971, located in the State of South Carolina, and then we built the first plant in North Carolina, a two-unit plant that came into service in 1975 and 1977,

and we have just finished and completed a new plant, the Shearon-Harris nuclear power plant located near Raleigh, North Carolina.

Last year, nuclear energy represented a large part of our production, and it represented a large part of our Nation's energy supply. About 17 percent was produced. We now have over 100 reactors that are licensed to operate. We expect that by 1990 there will be more, perhaps as many as 120, and that may be responsible for 20 percent of our Nation's electric energy supply.

I assure you that our industry is committed to safety. I testify also on behalf of the Edison Electric Institute, the trade association of the privately-owned utilities, and the American Nuclear Energy Council, which represents all of the privately-owned and publicly-owned systems, including the REA systems and the municipally-owned systems.

In this country, when you look at the number of years that each reactor has operated and add those together, you have now a cumulative total of about 1,050 safe reactor years of operation, with safety being measured by the fact that no one has been injured or killed through the operation of nuclear energy through those plants. It's a truly remarkable safety record. Yes, indeed, it is still a new and emerging technology; yes, indeed, one can never be complacent or satisfied with a record, even though we have avoided all injuries and deaths.

I would like to state that our position is one of being in support of the proposed NRC rule. And while I will speak from the generic standpoint for our industry generally, others may talk about the two plants that have been most often mentioned recently, the Shoreham plant and the Seabrook plant. I should mention that our Brunswick nuclear power plant that was built and placed in service with two units in 1975 and 1977, is on a beautiful coastline, while not in New England. It's in the State of North Carolina at the mouth of the Cape Fear River as it enters the Atlantic Ocean. It is populated throughout the year by those who enjoy the shore and the fisheries there. And one of the things that we found with the operation of that plant which might be just of collateral interest is that because we built a nuclear plant in an area that was very attractive to live in, used for recreation, that there then became the occasion for the utility—and we worked with State and local officials, and now FEMA is involved in reviewing the plans—in the development of the emergency planning process. And because of the emergency plans that were placed into effect solely because we had a nuclear power plant in this location, we found that as the hurricanes visit the east coast of North Carolina and stop and pay calls in the vicinity of this plant, that the evacuation and the whole emergency process in moving people in advance of the hurricanes works much better than it ever would have worked without the location of that nuclear plant there. And this is not simply a statement that I've made; it's a statement officially reported by State and local government officials.

So if I may use the phrase that my young daughters use, "flip side," there is a flip side to having a nuclear plant in a coastal area. But again, my testimony is intended not specifically with respect to either of those two plants that I mentioned. It's to address the rule generically.

The 1980 authorization act was a period of time when this very issue of State veto—and Senator Moynihan, I understand your question on the appropriate use of the word “veto,” and I use it advisedly, but I hope that perhaps our disagreement of interpretation will not lead to your displeasure with me personally just for using it in this context—

Senator MOYNIHAN. Not in the least, sir.

Mr. SMITH. The conferees—I think this was their definition of veto, and I use it in that context, and I quote from the conference record, “The conferees sought to avoid penalizing an applicant for an operating license if a State or locality does not submit an emergency response plan to the NRC for review, or if the submitted plan does not satisfy all of the guidelines or rules,” that is, of the State and local government. “In the absence of a State or local plan, the compromise permits NRC to issue an operating license if it determines that a State, local, or utility plan provides reasonable assurance that the public health and safety is not in danger.” And so I use the word “veto” simply as a shorthand way of expressing that same feeling before this committee.

The law requires that the Commission may, in such manner as it deems necessary, make findings that will provide adequate protection for the health and safety of the public. That is the Federal standard, and it is a standard that is important and should always be maintained. While nuclear plants serve a vital mission in providing electricity, it’s very important that safety comes first, and there’s no disagreement in our industry between those who would say safety first in the operation of nuclear plants and, I would say, other large facilities operated by electric power companies.

The rule that the Commission has proposed does deal with the situation that unfortunately has arisen where there has been a lack of State or local cooperation. The rule does not, as some have characterized it, simply open the door and say, *carte blanche* without a finding, that there will be participation by the local people who are in a place to do some of the things that need to be done, that without that a plant may be licensed. In fact, the rule itself spells out some requirements that I would describe as hurdles. The applicant must show that non-cooperation “could be remedied or adequately compensated for by reasonable State or local cooperation.” The applicant must demonstrate “a good faith and sustained effort to obtain the cooperation of the necessary State governments.” The applicant’s offsite plan must include “all effective measures to compensate for the lack of cooperation which are reasonable and feasible under the circumstances and which take into account a possible State or local response to an actual emergency.” The applicant must provide copies of the plan to all governments and “assure them that it stands ready to cooperate should they change their position.”

So I think the Nuclear Regulatory Commission itself obviously has anticipated the types of questions that have been discussed today and were addressed by FEMA officials. In response to questions they addressed some of these issues. The NRC indeed will have to make findings that meet its own proposed rules and guidelines in order that the Commission carry out its mandate to provide adequate protection to the health and safety of the public.

So we feel that this rule, while it is a change—and it's a change for obviously-stated and well-known reasons—does not lower the statutory standard of safety. When the NRC makes safety findings, the NRC has to consider not only the appropriateness of an emergency plan; they have to consider the design of a plant. They have to consider the construction of a plant. They have to consider the type of plant that it is. They have to consider the training of the personnel in the plant. There are many, many different requirements that go into what is referred to as an "integrated approach" to safety. And emergency planning, yes, is an important part of those, and Congress has said it is an important part. But it has given to the Nuclear Regulatory Commission, which has the expertise, the discretion to decide what will meet the Federal statutory standard.

There was a comment made earlier this morning with respect to the FEMA interest in examining sheltering persons rather than evacuating them. This has come up. I think one of the things that I'm told by those who have visited Chernobyl is that because of the very, very low levels of radiation found inside buildings, that the concept that sheltering is a better way of protecting individuals has received substantial reinforcement. And I think that the Nuclear Regulatory Commission, FEMA and others will be looking at that in the near future. I think that may be a very desirable way. I think the NRC's own testimony before this committee has clearly spelled out their own understanding both of their legal and their moral conscience responsibilities for carrying out the mandate that the public health and safety be protected.

A question was asked earlier—I believe it was by Senator Warner, who may not be here now—with respect to the possibility that a State "veto," if I may use that term in the context I described, might develop elsewhere and affect other plans. Our industry's concern is yes, that potential does exist. We are very concerned about it. We have over 100 plants licensed to operate. It is required that there be regular drills. If State and local governments withdraw cooperation—and this experience has taken place; already we've seen it take place in the State of Illinois, the State of Ohio, and I think the City of Rockland's position was mentioned earlier—there is very clearly the opportunity for State or local government to withdraw from participation in emergency planning, and under the current situation, in effect lead to the withdrawal of the license.

With respect to what is ad hoc response planning and is that appropriate, and by "ad hoc" I'm describing a type of emergency response which in many places in this country over the years has worked very well; I suppose most of our accidents happened in places where there was no plan. We're never quite sure where the train may derail or where the two trucks or tank cars may collide. We can't practice at a particular intersection or a particular railroad crossing throughout this large country. Our responses to that extent with respect to location are almost always ad hoc, and yet I would say that they have been very effective. But I also want to say that ad hoc responses are not as optimum and not as desirable as planned responses and planned testing. And I want to say that in our own experience, working with plants in operation both

before and after the Congressional action in 1980 and the NRC rule, that we have benefitted by participation in the planning by State and local governments. It's been very important. And the interaction that we have had with FEMA has shown us in our experience to be working with an agency that is professional, that is constructive, so I have to express appreciation for the importance of the role of FEMA in State and local governments in the emergency planning process.

I think that it is most unfortunate that there have been cases where this is not forthcoming in the planning stage. Obviously, if the plants were licensed, then it would be much more likely, and I think encouraging, that the State and local governments officials would carry out their responsibilities before it was required that there be an official, comprehensive plan. We operated three nuclear units; it never occurred to us that if there were an accident, that the local officials would not participate. In fact, we would conduct such things as fire drills. Interestingly enough, I believe that most of the fire personnel throughout the United States, certainly in our agency, are not government employees. That's different in large metropolitan areas, of course, where they are government employees, but we work with many private, quasi-public agencies. They are rescue squads. They are local fire departments. They are people who are just typical Americans, like the people in this room, and if there's an emergency they're going to respond.

I favor preplanning and testing, but I do think that the NRC should be allowed to seek to implement its rule and determine whether or not it may be possible to provide adequately for public health and safety where you do have a local and State veto in the wings. The State governments participate in determining where the plants are located. They first have the authority and exercise it through a certification proceeding to decide, is there a need for electric power? Yes. What sort of power should be provided? Should it be from a fossil source or a nuclear source? If nuclear, then where should it be located? The States have control over siting. It's not as though a utility could go out and site a nuclear plant in violation of the wishes of the State. Anyone who says that is simply unfamiliar with the process whereby it works.

So the States do have an important role. They have a role to determine the rates which are charged, subject some sales which may be for resale where the Federal Energy Regulatory Commission is involved. So the States are very much involved, and we favor that system.

I'd like to say with respect to the S. 40, which has been introduced—and Senator Moynihan, if I may, you may disagree with the views that I will state with regard to our understanding of how S. 40 would work, and before stating those views I'd like to preface my comments by expressing appreciation of our industry to you, and my personal appreciation, for your interest in nuclear power, and particularly for your interest in the training of nuclear power operators. I remember testifying before you when it wasn't appropriate or convenient for anyone else in the United States Senate to be there, but you were there. You took the time. Your legislation that was introduced was a very constructive prod to the industry, which was already moving in the direction of national and uniform

training programs, to get on with it, and to get together, and let's see how to do it. And now we do have a National Nuclear Training Academy. All of the plants—and usually each plant has 10 programs that must be accredited—all of those programs have been either accredited or are in the process of being accredited. We were the first utility to have all of its programs accredited.

So I say that out of the knowledge of your own—not just expressed interest, but the hard work you've done and the time you've devoted to the question of, how should we operate nuclear power plants?

I have S. 40 in front of me, as introduced, and my concern with this legislation is very simply that, in truth and in fact from a practical standpoint, it would legislate what I'll call the status quo and thereby provide a State and local veto. And I'll explain myself, because I realize that you and others may differ with the way in which I read the bill and understand it would work.

If one reads the purpose of the bill, the purpose is stated, "To amend the Atomic Energy Act to clarify that no nuclear plant can operate without assurance from the Federal Government's experts on emergency preparedness"—and I read that as the Federal Emergency Management Agency, FEMA—unless they assure that public health and safety can and will be protected. So that's the purpose of the bill. And then in section (C) there's a statement that it's the sense of Congress that no plant should operate without assurance from the Federal Government's experts, that is FEMA, on emergency preparedness that public health and safety can and will be protected.

Now, the FEMA comments on the NRC proposed rule and the statements of the FEMA officials as I heard and understood them this morning were to the effect that FEMA would be unable to make any finding, either positive or negative, with respect to the assurance of public health and safety in the absence of local and State cooperation. Now, I think one can differ with, first of all, my understanding, certainly, of what they said, and the transcript will reflect that, but I listened intently, and I think that that was what FEMA was saying, that FEMA is so disposed—they view their charter and mandate such—that unless you have the local and State cooperation and participation in the planning, they cannot make a finding.

If that is true, if I've understood them correctly, then when one reads section 4 of S. 40, FEMA would be unable to do what is required. They would be unable to issue a finding regarding whether said plan will provide assurance that the public health and safety can and will be protected in an emergency.

So as one who is an official with a company that operates four nuclear units at three sites, we've been in emergency planning before and after the 1980 legislation, before and after the NRC rule. We've participated in more than 20 drills involving State and local and FEMA officials. We understand how the system works and we believe, in truth and in fact, that we understand the way in which this legislation, if enacted, would operate. It would operate to legislate what I'll call the status quo, and would mean that unless you have State and local government cooperation in the testing and planning so that FEMA is enabled to make a finding—

not just a positive finding, but a finding either way--then they cannot meet the requirements of S. 40, and the guillotine would fall; no plant should operate. That's the reason for our concern.

There's another matter that I'd like to--

Senator BREAUX. Mr. Smith, I'm going to ask you to try to summarize. I've got two other witnesses and a bunch of other panels.

Mr. SMITH. May I just wait and respond to questions? And I apologize if my remarks have been more extensive than the committee's time permitted.

STATEMENT OF W. TAYLOR REVELEY, III, HUNTON & WILLIAMS, RICHMOND, VIRGINIA, REPRESENTING THE LONG ISLAND LIGHTING CO.

Mr. REVELEY. Thank you, Mr. Chairman. My name is Taylor Reveley; I'm the managing partner of Hunton & Williams, special counsel to the Chairman of the Long Island Lighting Company, and a hapless victim who has been involved in the licensing of Shoreham since 1970. The 17th year of involvement in that licensing process will come shortly.

Senator MOYNIHAN. Is this pro bono work?

Mr. REVELEY. Emphatically not, Senator. This is not a pro bono undertaking, although there are many elements of public policy involved which I will get to in due course.

The Long Island Lighting Company appreciates very much the opportunity to participate in this hearing. LILCO does, in fact, believe that the proposed NRC rule is profoundly in the national interest.

Despite the fact that I live in Richmond, Virginia, I have spent literally years on Long Island during the licensing process. Long Island is an economically vibrant part of the country, remarkably vibrant at the moment, but it's also a part of the country that is having trouble dealing with a number of environmental issues. We are all familiar with the wandering garbage barge that is now roaming the high seas, seeking a place to dispose of a great deal of garbage from Long Island. Long Island is having trouble resolving its refuse disposal problems. It's having trouble finding sites for new jails. It's having difficulty assuring adequate groundwater supplies. It is also having trouble dealing with its energy supplies, Shoreham being the most visible aspect of that difficulty.

I'd like to pose five questions and answer them very briefly.

The first question is, is the hostage plant issue simply an aberration of New York and Massachusetts politics, a passing aberration, or is it an issue of genuinely national proportions?

Second, do States now have a legal prerogative to block on emergency planning grounds the operation of nuclear plants? Do they have a legal prerogative that the NRC is attempting to take away by the amended rule in question?

Third, under the proposed rule would the NRC be able to license an unsafe plant?

Fourth, what about the will of the people? What about the fact that many of those people living around certain nuclear plants today, Shoreham included, don't appear to want those plants to operate?

Fifth and finally, is the NRC trying to bail out the nuclear industry?

As to the first question, is the hostage plant issue simply an aberration of New York and Massachusetts politics, I think the answer is very, very much, no. The issue did start in Suffolk County on Long Island. It then spread to Nassau County and New York State. It has now spread to Massachusetts and Ohio. There are harbingers of it in places such as North Carolina, California, Illinois. It affects not just plants that have yet to begin commercial operation but also plants that already have begun commercial operation.

If in fact, either at Shoreham or Seabrook, a nuclear plant is prevented from operating because a State or locality doesn't believe in its judgment that adequate emergency planning is feasible for that plant, then this phenomenon will spread quickly everywhere. People who believe it will not spread quickly everywhere, in my judgment, are simply being unrealistic. Why will it spread quickly? First, because it's very easy to pull the plug if the State or locality wants to. All they have to do is commission a study and conclude, based on that study, that adequate emergency planning is infeasible, and then to decline to participate further in emergency planning. That can happen at any time to any plant.

Further, the issue is an attractive one for any local or State government that wishes to seek concessions from a utility company, for a politician in need of an attractive issue, for anyone beset by anti-nuclear activists who wishes to accommodate them. It is an attractive issue.

Further in this regard, it's well to bear in mind that the emergency planning issue that now exists with such vigor is simply the latest in a long line of anti-nuclear issues that have been first raised, and ultimately resolved; but when each has been raised, it has been raised with the view that, if successful, it could in fact seriously impair or prevent the further development of nuclear energy. We are all familiar with those issues. They began with thermal pollution in the late 1960's and early 1970's, moved through low-level radiological releases, ECCS matters, the fuel cycle, radon, human factors, more recently quality assurance, and now emergency planning. If emergency planning does prove to be an issue that succeeds in blocking new nuclear plants or ending the operation of existing plants, then that will also carry with it, inevitably, the end to Federal determination of questions of radiological health and safety. If a State or locality is able to say, based on its own appraisal of radiological health and safety, that adequate emergency planning is infeasible and therefore that a nuclear plant may not operate, that's it for Federal preemption over questions of nuclear safety. The demise of Federal preemption over those questions, in turn, would carry with it the end of serious use of nuclear power in this country as an element in our national energy policy.

In short, as to the first question, we confront not simply an aberration in two States' current political situations. We confront a matter of genuine national concern.

Second question, do States now have a legal prerogative based on their own views of emergency planning to block the operation of

nuclear plants? The answer is no—not a legal prerogative, not a de jure right. Two Federal District judges on Long Island have made that clear in decisions handed down, one in 1985 and one in 1986. Those decisions are cited on pages 5 and 6 of my written testimony. I'll read just a phrase from Judge Altamari's decision in a case entitled, *Committee for an Orderly Energy Policy v. County of Suffolk*, handed down in 1985. Judge Altamari said, "Congress considered the possibility that a State or local government or both would fail to participate in emergency planning. Rather than require participation, Congress provided that the utility could provide a plan."

That Congressional provision necessarily carries with it the possibility that such a utility plan will, in fact, be found adequate, and that Congressional provision precludes the existence of a legal prerogative on the part of a State or locality to veto a nuclear plant on emergency planning grounds.

Third question. Under the proposed rule, would the NRC be able to license an unsafe plant? This gets to the heart of the issue. The answer again, emphatically, is no. The NRC could not, under the proposed rule, license an unsafe plant. First, the plant itself has to have been found safe per se, its design, its construction, its components, its equipment, its people, its procedures—all must have been found safe by the NRC. And in the case of Shoreham, all have been found safe after exhaustive NRC review.

In the second instance, offsite emergency planning has to have been found feasible by the NRC as a matter of background conditions, as a matter of geography, weather, roads, population, and other background conditions. Again, at Shoreham the pertinent NRC licensing board has found that offsite emergency planning is feasible for Shoreham. On page 14 of my testimony the pertinent passage from the licensing board's opinion is quoted, stating: "The record fails to reveal any basis to conclude that it would be impossible to fashion and implement an effective offsite emergency plan for the Shoreham plant."

Third, if the State and local governments are not cooperating in the emergency planning process, then the utility itself must have taken effective compensating measures to offset the lack of State and local participation. Once again, at Shoreham this has been done. LILCO has raised an organization of over 2,000 workers, trained them, drilled them, and prepared them to operate as a local emergency response organization. Not, I might add, exercising police power in any sense that that term normally conveys, but acting to diagnose the accident, notify people about it, recommend protective actions and the like. Such compensating measures have to be present.

In short, under the proposed rule, if adopted, there will be no licenses for reactors that lack the requisite showing of safety. And it is well to be clear that any decision made by the NRC under the proposed rule must be reviewed, if challenged, in Federal court. The D.C. Circuit in the past has shown no hesitancy to strike down NRC decisions when it felt them inadequate.

Fourth, what about the will of the people? What about the fact that most people on Long Island now seem not to want Shoreham, and that most elected officials in New York State seem to oppose it? The question is which will and which elected officials are to

govern. Shoreham at its construction permit stage was strongly supported by both Suffolk County and New York State. When an emergency planning issue was raised by a private party during the CP hearings, neither New York State nor Suffolk County found any emergency planning problems with Shoreham. As late as the fall of 1981, Suffolk County itself, with the approval of its County Executive and legislature, signed a contract with the Long Island Lighting Company which stated, in part, that the county was familiar with pertinent post-Three Mile Island emergency planning requirements, that the county could comply with them, and that it would do so.

Three and a half years after Three Mile Island, in December 1982, New York State was in court litigating in an attempt to obtain the right to send a then utility-only plan for Shoreham on to FEMA. Both before and after Three Mile Island, Suffolk County and New York State supported emergency planning for Shoreham.

The county and the State have long recognized, although they don't talk about it now, that there is a need for oil displacement on Long Island—all of LILCO's generating facilities are oil-fired now—and a need for new electric generating capacity on Long Island to meet rising demand.

Three Governors of New York have supported Shoreham. Only the most recent Governor has opposed it. Two of the four pertinent County Executives have supported Shoreham. Of the other two, one had trouble making up his mind, and one just came to office.

What will be the public view in the future if Shoreham does not operate and there are blackouts on Long Island? There is another oil crisis? There is a realization that billions of dollars of sunk costs must be paid by somebody? New "source term" information on the consequences of nuclear accidents becomes generally accepted? People come to understand that sheltering, not evacuation, is the best means of dealing with most nuclear accidents?

What will be public opinion in New York then? I daresay public opinion will swing back toward Shoreham.

One last observation on the will of the people. It is of course possible for a State, if it wishes to, to condemn a power plant that it no longer wants, so long as it is willing to pay for it. What is not acceptable is for a State or local government to use the NRC licensing process, in effect, to condemn a plant without the necessity to pay just compensation for it.

Finally, and I'll be very brief on the last point, is the NRC attempting to bail out the nuclear industry? No matter how often and how vigorously this claim is made, it is difficult for me to take it seriously after having been involved for sixteen and a half, almost seventeen years, on Long Island in the licensing of Shoreham and after having experienced the exhaustive extent to which the NRC and the courts have reviewed Shoreham—the submicroscopic detail in which it has been analyzed. There is no sense in which the NRC has bailed out Shoreham. Quite to the contrary, but for the exceptionally complex, ever-shifting set of NRC regulations which Shoreham has had to meet, and the relentless NRC scrutiny to which it has been subject, Shoreham would have operated long ago.

Let me subside at this point, Mr. Chairman, and I'll be delighted to answer questions.

Senator BREAUX. Thank you, Mr. Reveley.

Mr. Edwards?

STATEMENT OF GEORGE W. EDWARDS, JR., CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE UNITED ILLUMINATING CO.

Mr. EDWARDS. Thank you, Mr. Chairman.

I am Chairman of the United Illuminating Company, which is located in New Haven, Connecticut, and we own 17.5 percent of the Seabrook plant located in Seabrook, New Hampshire.

I'll try to cut mine down, but let me say that I will certainly adopt everything that my colleagues, Mr. Smith and Mr. Reveley, have said today. Perhaps that will shorten my testimony somewhat.

Our 17.5 percent ownership in Seabrook makes us the second largest owner of that plant. There are 12 owners of the Seabrook nuclear plant. I also serve on the Executive Committee of the Joint Owners of Seabrook.

I have heard on a number of occasions Senator Kennedy and Senator Moynihan express their position, as well as Governor Dukakis, and with all due respect to them, there are other distinguished former—and now present—elected officials who differ with them.

Senator MOYNIHAN. Sir, could I ask on what occasion you have heard me express what?

Mr. EDWARDS. Your position on the proposed NRC rule change.

Senator MOYNIHAN. But on what occasions?

Mr. EDWARDS. I heard you testify last week where I testified also, on the House side.

Senator MOYNIHAN. On the House side?

Mr. EDWARDS. Yes, sir. And I had also heard Senator Kennedy and Governor Dukakis testify before the NRC some weeks ago.

Senator Simpson has stated President Reagan's position. I would add that former Speaker of the House Tip O'Neill is supporting our position, and it's well known that the Governor of New Hampshire is very supportive of the proposed rule change.

But nuclear power has been very good to New England. We have enjoyed tremendous economic growth and prosperity, and a lot of that economic growth and prosperity has been fueled by nuclear power. Roughly a third of the electric energy in New England is produced by nuclear power from eight nuclear power plants, four of which are in my State, Connecticut; two in Massachusetts; one in Maine, and one in Vermont.

Nearly \$5 billion has been invested in Seabrook, and its construction is completed. The fuel is loaded and it is now ready to produce electricity, electricity that is vitally needed throughout the New England States. But the availability of Seabrook's capacity is being blocked by the action of one State, Massachusetts, by its refusal to participate in the offsite emergency planning process. I genuinely believe that to allow this situation to continue not only endangers

the energy supply for New England and the Nation, but also the clear intent of Congress.

My filed testimony makes five points why we believe the NRC should not be prevented from changing its current rules, and indeed, that the NRC should be encouraged to do so. I will briefly summarize those five points.

The first one is that Seabrook's electrical capacity is badly needed in New England. A recent report accepted by the New England Governors, including Governor Dukakis, forecast that without Seabrook on line the New England region will need approximately 2,800 megawatts of new generating capacity to be in place as early as 1992. Even more serious shortfalls are indicated by the Governors' report for later in the 1990's, shortfalls in the 5,000 to 10,000 megawatt range. And the bottom line is that New England not only needs Seabrook's 1,150 megawatts of capacity, we need every source of additional capacity that is reasonably available to us.

Point two, Massachusetts, in spite of its most recent action, has given regulatory approvals of the plant many times over the past 12 years. Attached to my filed testimony you'll find a chronology of various approvals of Seabrook by Massachusetts State agencies over this extended period. Except for rare occasions, they gave Seabrook all the necessary approvals.

I would also note that today, Massachusetts municipalities own approximately 12 percent of Seabrook, making local government the fourth-largest owner.

In reliance upon approvals from the State, and most recently in January of this year, these 40-plus municipalities have invested over half a billion dollars in the plant.

My third point, Seabrook was prudently planned and approved, and it also is exceptionally well-built and has passed all safety-related examinations with flying colors. In the definitive NRC review of Seabrook, the SALP review—Systematic Assessment of Licensee Performance review—Seabrook received a "1," the highest mark possible on all facets of construction quality. We are very proud of what is certainly one of the best-built and staffed nuclear plants in the country, including the fact that it is the only reactor in the United States with double containment.

Mr. Chairman, on behalf of the joint owners of Seabrook, I extend to you and the other members of this subcommittee an invitation to see what I'm talking about firsthand. I would ask that you go to Seabrook, bring your staff, your people, and any experts of your choice, talk to anyone you like, and to check our claims.

Point four, effective offsite emergency planning and implementation is feasible for Seabrook. Last September, the Governor of Massachusetts formally announced that he would not submit offsite emergency response plans for the six towns that lie within the required 10-mile Emergency Planning Zone. I might add that I've heard all kinds of figures thrown around here about the population within this 10-mile zone. In the study done under the supervision of the Civil Defense Agency of the State of Massachusetts, it indicates that the population is 50,000 people during normal times, and during peak periods it goes up to about 86,000. I've seen no studies or anything of any substance to indicate that the population gets to 150,000 to 200,000 people. It simply is not substantiated, except by

those who say they drive around on the beach during the peak period and say that they think that's how many people are there.

But the stated reason was that emergency planning and evacuation could not adequately protect the public in the event of an accident. Well, Massachusetts did not always hold that view; in fact, the State and local emergency response plans and procedures for Seabrook were actually prepared by the State Civil Defense Agency and its major contractors. The question has been asked a number of times, would the State elected officials and appropriate officials participate in the event of an emergency? Well, of course they would, Mr. Chairman. We're a Nation of heroes, people who are courageous people. Unfortunately, we have our share of cowards, but I have no doubt in my mind—

Senator MOYNIHAN. Name a coward. What kind of talk is this before the United States Senate? What are you talking about?

Mr. EDWARDS. I'm certainly not implying anything, Senator.

Senator MOYNIHAN. Name a coward, sir, or withdraw the remark.

Mr. EDWARDS. I will withdraw my remark, Senator.

Senator MOYNIHAN. Thank you, sir.

Mr. EDWARDS. We are a Nation of heroes, and we are a Nation of brave men and women who will come to the aid of their colleagues and their people in time of need. Moreover, the emergency plan for Massachusetts has progressed through two FEMA reviews, and the State officially pulled out last September. But despite Massachusetts' assertion that adequate evacuation was not feasible, examination of their own estimates of the time required to evacuate the entire Emergency Planning Zone, both Massachusetts and New Hampshire clearly show that evacuation is, indeed, feasible.

I have attached to my testimony NRC data that shows the evacuation times for Seabrook, as estimated by Massachusetts, are at least comparable to—and often faster than—many other plants operating around the country. My point is that emergency planning for these plants is obviously acceptable to the States involved, as well as to the NRC and to FEMA; yet we're told by Massachusetts that planning for Seabrook somehow isn't feasible. It's frustrating, Mr. Chairman, and I think it's wrong.

How is it, then, despite ample need, a long history of regulatory approvals, construction excellence, and emergency planning feasibility, that a nearly \$5 billion investment in Seabrook simply sits idle at a cost of about \$50 million each month?

The fundamental reason Seabrook sits idle is that an individual State can have a de facto veto power under the current NRC rules.

My fifth and last point is that if Congress allows one State to oppose its energy policy and its politics with regard to a nuclear plant that is not even within its borders, but is located in a State where its Governor—the Governor of New Hampshire—has consistently and vigorously supported the plant, and continues to do so, then the operation of any licensed facility could well be jeopardized by the next municipal, county, or State election. And I would add that in December, 1985, the State of New Hampshire submitted its plan.

As you know, the NRC is seeking comments on a proposed rule change to end this de facto veto mechanism. The bottom line of the

proposed rule is that for an otherwise safe plant for which emergency planning is feasible, the refusal to participate cannot, by itself, be used by an individual State to prevent issuance of an operating license. We think that the rule change is fair and reasonable and should be allowed to be adopted.

Thank you, Mr. Chairman.

Senator BREAU. I thank the members of the panel for their testimony.

Mr. Smith, let's start with you. On page 6 of your testimony you talk about what the NRC has to find in reviewing these emergency plans in order to approve them, and you say,

In practice, NRC's ultimate finding involves an integrated assessment of a wide-ranging, complex set of variables. For example, NRC assesses the adequacy of the design, quality of construction, the caliber of operator training and experience and overall management competence. Emergency preparedness is yet another of these elements taken into account.

My question to you is, do you think it would be possible if the NRC finds 100 percent on all of these first four areas, operator training, management, design, quality of construction, but finds zero on the question of emergency preparedness, that they don't have State participation, they don't have local participation, so in that case they get a zero as far as their evaluation is concerned; get 100 percent on the other four elements that you cite, is it your opinion then that the NRC would theoretically and legally be able to license that particular plant although they found zero percent of accomplishment in the emergency preparedness area?

Mr. SMITH. Mr. Chairman, no. I believe that the NRC in the situation you described would not be carrying out the mandate of the 1981 authorization requirements and would not be carrying out the mandate of their own new proposed rule if they found what you expressed.

Senator BREAU. So in listing all the areas they have to consider, you're not trying to separate them out and say, if you get three out of four or four out of five you're all right? You're saying that you have to meet that standard in each one of the areas before they would be able to get a license?

Mr. SMITH. Yes. And I'm saying that there is an integrated approach to safety, that the NRC must consider all those items; and under the law, it must consider emergency preparedness in making the decision with respect to whether or not the plant may be operated in such a way that will protect the public health and safety. And I think perhaps a simple illustration might be if one thought not of radiation, which is invisible to the human eye, but if you thought of something you can see—if you thought of smoke and soot, which are much more benign, but for my purposes perhaps I might use that—if there was a large burst of smoke that went up a chimney, industrial, residential, and it carried soot and those cinders were hot, and the danger to the public was two-fold, that hot cinders would fall on someone and that they would be hurt, or they would breathe in minute particles that were hot and they would be damaged. That is, in a conceptual way, similar to the type of radiation emergency planning that the NRC must consider—

Senator BREAU. The point I'm making, you listed five categories. I just wanted to make sure that you weren't saying that if you

get four out of five you can approve it, even though you failed completely and totally on the fifth.

Mr. SMITH. No.

Senator BREAU. All right.

Mr. Edwards, as Senator Moynihan has said, it's not really a question of heroes or cowards at all. I thought your phrase was inappropriate, but I think you got that message from Senator Moynihan—

Mr. EDWARDS. Mr. Chairman, I did, and I apologize.

Senator BREAU. The question I have; you make the assumption that local people in time of an emergency will in fact participate, that we can count on them to do that as part of their job. But I think the question goes far beyond that. It's not a question of whether, on the day of an emergency, they're all going to rally around the flag. It's a question of whether on that day, had they not participated in any planning, had not participated in any drills, had not even even read the emergency plan, that they in fact would be competent to be able to assist in a plan that they know nothing about. Can you explain to this committee how we expect local and State officials, people who work day to day for counties and cities and States, are going to be able to be, not just willing to participate, but more importantly, competent to know what to do, how to do it, when to do it if, in fact, they haven't participated at all in developing the process?

Mr. EDWARDS. Well, my answer to that is probably not very good, but local officials—

Senator BREAU. Well, isn't that the crux of the matter, then? We're talking about something that's going to hopefully work very well.

Mr. EDWARDS. Yes, sir.

Senator BREAU. And if they don't know anything about it, how can they make it work very well? Or at all?

Mr. EDWARDS. It's my understanding that most all local governments have some type of emergency plan because there are other types of disasters, other types of accidents that are going to happen in the future besides nuclear, if that happens. And I think that the existing plans that they have would be of some benefit. However, I think that absent some mechanism to eliminate the de facto State veto—and that's what makes this rule change so important—I think that if they have to participate they will, and we'll be better off. But as it stands right now, the license can be denied or delayed indefinitely for failure of, in our particular case, one Governor in his State to not participate, when you've got another Governor in another State participating.

Senator BREAU. Do you agree with the comments that FEMA has made with regard to the proposed rule change? And I quote what they said: "Even if the premise is valid"—and the premise that they are referring to I take to be the premise that local and State government in the time of an emergency would be willing to participate—even if that premise is valid, "the ad hoc nature of their response could have unfortunate consequences. It is not assured that the full range of necessary actions will be taken."

Do you agree with that statement from FEMA?

Mr. EDWARDS. Well, I think in part. I agree that a plan without local participation would not be as effective as one with local participation, there's no question about that.

Senator BREAU. Do you have any recommendations to the Congress as to how we ensure not just that the NRC issues them a license for approval of, say, a utilities emergency evacuation plan, but how do we as a Congress ensure that that plan can, in fact, and will, in fact, be carried out? What tools do we have at our disposal to guarantee that if we suddenly find a State that perhaps has changed its mind? I think you've made a good case that Massachusetts has, in fact, changed their minds. But how do we face this problem, now? They say, look, we're not going to play the game. We have an obligation to see that NRC issues a license that protects safety. How in the world can we do that?

Mr. EDWARDS. Well, I think that that becomes a matter of whether we're going to have nuclear power in this country or not. And I think that that's clearly—

Senator BREAU. Assuming we say we are going to have it.

Mr. EDWARDS. Okay. I think it's within the Federal domain to order the States through some mechanism, whether it be through legislation, whether it be through some other Congressional or administrative approach, that the State must participate in emergency planning. States do this all the time on things other than nuclear energy.

Mr. SMITH. Mr. Breau, may I add to that? I've thought about that in connection with our industry testimony, and I'd like to make two points.

One, just to call attention to the NRC rule itself, which cites other Federal legislation that requires emergency responses—the Superfund legislation, EPA's Chemical Emergency Preparedness Program which requires emergency preparedness—and with respect to your specific question, how would one be assured that the plan itself would work? One suggestion that I'd like to offer for consideration is to require testing by Federal agencies. Here's the plan. The NRC goes through its process. It reviews it. It decides that yes, adequate compensatory measures have been taken, the other three hurdles in its proposed rules have been met. It's possible for that to be tested, and it's possible for Federal agencies to test that plan.

With respect to how we know how the local officials will respond, and while practice at a particular location unquestionably would improve the performance in an actual emergency, we know—and Congress certainly takes notice of this in many ways—that we have fire departments; we have the police departments; they are trained, and they operate in every community. We don't know where the fire will break out. We don't know whether it will be at my place of business or at an intersection 20 miles away, and so what happens is that you have fire departments and police departments constantly going to locations where they've never practiced before, where they haven't set up a specific drill, and you don't know exactly where the storm will hit. And we know that they conduct themselves—that they know how to fight fires, that they know how to direct traffic, and where necessary they can evacuate people. In our own situation within the last 10 days, unknown to

the utility, unknown to anyone in the community, unknown to the school children, our local school board decided that it would test the ability of the school drivers to evacuate all of the grammar schools within our Shearon-Harris nuclear power plant without anyone knowing it. There was an alert sounded. The evacuation went off like clockwork, and it was because school bus drivers, for many different reasons, have been trained to move school children around on school buses on short notice.

Senator BREAUX. Well, I guess the point that you're trying to make is that in the event of an emergency requiring the evacuation of an area, the local officials are going to participate whether the evacuation is necessitated because of a fire or hurricane or explosion or a toxic spill or a nuclear accident. They're not going to look to see why they've been ordered to evacuate people because the order has been given. They're not going to ask the question—well, we're going to do it because it's a toxic spill; we're going to do it because of an explosion, natural gas or what have you, but we're going to sit on our duffs and not do anything if it's a nuclear accident.

Mr. EDWARDS. Yes, sir, absolutely. They will do that.

Senator BREAUX. Mr. Reveley, on page 17 of the Long Island Lighting Company statement with regard to the plan, you all have developed a plan as a utility. Is that correct?

Mr. REVELEY. That's correct, Senator. It was premised on and built on a plan previously developed by the county.

Senator BREAUX. What assumptions, if any, are included in that plan with regard to the response action of the State and local governments in the event that your company's plan would have to be put into effect?

Mr. REVELEY. The plan is designed to work either with the response of the State and local personnel or without them. The belief and strong hope is that they would participate, and the plan is designed in such a fashion that it could easily accommodate their participation.

Senator BREAUX. Could you tell the committee a little bit about what the plan would include, under the assumption that local people have not participated in the training or the development of this specific evacuation plan?

Mr. REVELEY. Let me start with that aspect of it.

As I said, the existing offsite plan for Shoreham was built, again, with a plan that Suffolk County—in which the entire Emergency Planning Zone sits—had itself developed. The plan went from there—it is now structured in a fashion that it looks as much like the sorts of plans that the State of New York deals with at other nuclear plants as possible. Same sorts of concepts, approaches, procedures, so that the State of New York, familiar with offsite emergency planning in a number of other reactors, could easily grasp LILCO's.

Further, at Shoreham, of course, the details of the offsite plan have been litigated at great length—in submicroscopic detail, so State and county personnel are intimately familiar with the details of the plan by dint of the litigation. They have many copies of it. So it is simply not the case at Shoreham that in the event of an actual emergency, the State and local officials would be responding

with no familiarity with the plan. They have a great deal of familiarity with it.

Senator BREAUX. How does the Shoreham evacuation plan compare with regard to, say, evacuation times, density of populations, how they would be moved, with regard to evacuation plans that the State and local governments have participated in and approved for other New York nuclear plants?

Mr. REVELEY. It compares very well in terms of the amount of time required to evacuate the Emergency Planning Zone.

And let me make one observation on that score. If in fact it is the case that all of eastern Long Island must be evacuated for Shoreham, the tip of eastern Long Island being 50 miles from Shoreham, well beyond the 10-mile emergency planning radius, then it's also the case for Indian Point that New York City must be evacuated. Obviously, New York City can't be evacuated in the event of an emergency, and yet the State of New York finds Indian Point acceptable.

The reality is that you don't need to evacuate under existing Federal regulation, if you need to evacuate at all, as opposed to sheltering, more than a 10-mile Emergency Planning Zone, and a 10-mile Emergency Planning Zone does not by any means cover all of Long Island, which is about 120 miles long.

If there must be an EPZ of 20 miles or more for Shoreham, then we must have a 20-mile, or greater, EPZ for Indian Point. In LILCO's judgment, it is simply impossible on the facts to distinguish Shoreham from Indian Point. It is impossible on the facts to say that offsite emergency planning is impossible for Shoreham but possible for many other reactors in the country.

As the NRC has already found, offsite emergency planning is feasible for Shoreham, and the remaining difficulties with it could all be cured very quickly if State and local officials would participate in the planning process. But even if they won't, they are familiar with the existing plan. And of course, they would respond in the event of an actual emergency.

New York State and Suffolk County, finally, have vast resources. They are immensely sophisticated in emergency planning. They would respond and they would respond very effectively in the event of an emergency and their response would be easily accommodated by LILCO's existing plan.

Senator BREAUX. Senator Moynihan?

Senator MOYNIHAN. Thank you, Mr. Chairman.

May I welcome back to our committee Mr. Smith. It's always a cheering moment when you begin to testify, so positive and exploratory. You're a problem solver, and that's nice to see. You do the Edison Institute well, and I want to say that I've observed that the National Nuclear Training Academy is making its way along. If you don't mind my observing it, sir, one of the few plants that really passed all of your criteria is Peach Bottom, which shows you that you can't have too much training, right?

Mr. SMITH. Obviously, that situation is inexcusable and goes far beyond training. I shouldn't comment on the specifics because it's under investigation, but I should not let it be mentioned without saying that it's completely unacceptable to anyone that I know in

our industry, but it does show that, as indicated in your question, in addition to training you have to have consistent performance.

Senator MOYNIHAN. Ask the United States Navy. You just never stop. You do it every day until the crew wants to dive over the side, but you make them do it. That's why ships don't sink—too often, anyway.

But good, and thank you for that.

I'd like to make this suggestion with respect to this problem. The United States Government very actively advanced the development of nuclear power, and there is a lot of history here. I think in all truth it's a history of the physicists being very worried about what they had done after the war. And hence President Eisenhower's Atoms for Peace which, gosh, may end up with bombs everywhere. But we were talking at the time—which must have terrified some of you, in your business—of the time coming when it would not be economic even to meter nuclear power, there would be so much of it. But now we've learned some of the difficulties of a wholly new technology. I think the Federal Government could help, now that the issue of emergency evacuation and so forth has risen—the Federal Government could help give localities and States the confidence that they could do this.

I'm going to make the suggestion that New York is not sophisticated and full of resources with respect to the kinds of technological emergencies of the latter part of the 20th century; they never tested for it. We're pretty good at putting out fires in barns and four- or five-story buildings, but, God, if we ever get one in a 70-story building, we don't know. We've never had one. And the same kind of chemical events that we had in Bhopal in India, they're new to the species so there is a lot of learning to be done.

I just want to say that I think the Federal Government might encourage localities to think they can learn and can do what in fact they've never been required to do. They very legitimately say, well, we don't know how to do this.

But I am required to ask Mr. Reveley some questions.

You spoke, sir—and we don't have that text here, but we'll get it in the transcript—of whether this particular phenomenon is an aberration of New York and Massachusetts politics. And you said no, that the phenomenon will spread, as if we had some contagious disease here.

Mr. REVELEY. That is in fact the way I think of it, Senator.

Senator MOYNIHAN. You think of it as a contagious disease. Well, fine. I thought that was the way you thought of it, and you have a right to think that way. In the image, ideas can be contagious; they are not a contagious disease, but you said it is an issue that is an attractive one. You just said to me that you think of it as a contagious disease, and you said it includes politicians in need of an attractive issue.

Mr. REVELEY. I did say that.

Senator MOYNIHAN. Yes, you did.

Mr. REVELEY. I'm confessing.

Senator MOYNIHAN. You really are charming.

Senator BREAUX. The people who hired you are the same people who decided to hire Lyn Nofziger, is that right?

Mr. REVELEY. I predated him, Senator.

Senator MOYNIHAN. Sir, I was simply asking you—I want to be very specific because you mentioned—you said the last three Governors of New York supported this matter, and indicated that the present one does not. I hope you would not include Governor Mario Cuomo, our Governor, in that category of politicians in need of an attractive issue.

Mr. REVELEY. No, Senator, I am not including Governor Cuomo in that list.

Senator MOYNIHAN. Thank you.

Mr. SMITH. Senator Moynihan, may I make an observation on your comment—

Senator MOYNIHAN. Please.

Mr. SMITH. I think it helps me to think further about the way in which the Federal Government can be proactive, can be responsive to the need that you described of providing assurance, or further assurance, for residents of a locality where a nuclear plant is sited.

It seems to me that FEMA has a role in this situation, that FEMA might be involved in testing plans where you did not have prior State and local government participation in their development. I heard this morning that FEMA felt that it should be open-minded to new developments in how emergency preparedness can best be conducted. I was pleased to hear that. I think there is a role for the Federal Government, and there is a role for FEMA in this.

Senator MOYNIHAN. Well, you would surely agree that the whole history of the species has been the impact of technology as it has developed, and it's all relatively new in our experience, two or three centuries. Emergency planning in this country used to consist 80 percent of State troopers who would go up and down where the distinguished Chairman comes from and tell those folks having a hurricane party that, you know, really, it's not a good idea, why don't you come back in about 30 miles and have your party there? And they would usually say no, and you could say goodbye.

But the kinds of technological assaults—insults, if you will—that can come from chemical and radiation, that's all 50 years old at most, and we're learning. There's a lot of learning to be done.

Thank you, Mr. Chairman.

Senator BREAU. I want to thank the panel and each of the other witnesses who have appeared today.

It is now 12:30. We will recess now and reconvene at 1:30, at which time we will hear from the Honorable John Ahearne and other former Chairmen and Commissioners of the Nuclear Regulatory Commission.

There may be other questions that we want to present to this panel in written form. We will appreciate your responses.

The hearing will recess until 1:30.

[Whereupon, at 12:30 p.m., the hearing was recessed, to reconvene at 1:30 p.m. the same day.]

AFTERNOON SESSION

Senator BREAU. The subcommittee will please come to order.

When we adjourned after our morning session, the Chair had indicated that we would be able to perhaps to hear from Mr. Roberts, NRC Commissioner, when we resumed our business this afternoon.

I note that Mr. Roberts is here. Mr. Roberts, would you like to come to the witness table? We will swear you in again and then take any testimony that you might have, to be accompanied by anybody that you might like to.

Do you swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. ROBERTS. I do.

Senator BREAU. Thank you, Mr. Roberts. Please be seated. We will receive any testimony that you might have.

STATEMENT OF THOMAS M. ROBERTS, COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. ROBERTS. Thank you, Mr. Chairman.

Both I and my counsel have requested that questions directed to me by members of this subcommittee regarding the matter under investigation by the Department of Justice be deferred until such time as that investigation has run its course. Counsel for the subcommittee, however, has advised me that the subcommittee wishes to proceed with the matter and to pose questions that relate to the subject matter of the pending Justice Department investigation.

I wish to be cooperative and look forward to testifying under the appropriate circumstances. Both I and my counsel, however, require time to gather and review the evidence so that we may make an intelligent and informed decision as to the nature and substance of any responses I would give to questions regarding the Louisiana Power and Light matter. I do not want to make any mistakes in testimony, no matter how innocent.

As I understand it, the subcommittee is prepared to recognize our need for additional time under the condition that I refrain from participating in Commission decisions or actions until such time as I make myself available to return before the subcommittee on this matter, which shall be within two weeks of today. Accordingly, it is my understanding that the subcommittee has agreed to defer posing any questions to me regarding the matter under investigation by the Justice Department for a period not to exceed two weeks.

In consideration of the adjournment of this proceeding, I have agreed to refrain from participating as a Commissioner, either personally or through my immediate staff, in any decision or action of the Commission through decision, approval, disapproval, recommendation, the rendering of advice, investigation or otherwise, including participation in any Commission meetings with regard to such decisions or actions, until such time as I make myself available to return before the subcommittee on this matter, which shall be within two weeks of today.

I am confident that the facts will demonstrate that I have done nothing improper. I am also confident that this subcommittee and the Justice Department will reach the same conclusion. I am grateful to the chairman and the members of this subcommittee for their willingness to permit me to prepare my response.

Thank you, sir.

Senator BREAU. Thank you, Mr. Roberts. I accept the statement that you have presented to the committee.

I think that it is very important for this subcommittee to be in a position to have officials of the NRC appear before it and respond to questions that members of this subcommittee presented to the witnesses who were sworn. If a witness is unable to respond to those questions, there must be some reason for that lack of response. I think that is very, very clear in the proceedings of this congressional committee and in fact all congressional committees, that we retain the right to expect public officials and witnesses who appear to be able to respond.

There may be circumstances legally that entitle you to not respond. Therefore, in the discussions with our other members of this committee, including the ranking minority member, Senator Simpson, we find this statement by you to be acceptable. I was concerned and others were concerned about continued participation in the workings of the NRC during this period. Your statement indicates that you recognize that, and have taken action and will take action to protect the public interest in that regard.

In that light, we will reschedule your appearance before this subcommittee. We are going to do it within a two-week period, scheduling allowed, and that hearing will be the subject of your testimony.

Senator Moynihan, any comments?

Senator MOYNIHAN. Mr. Chairman, I very much concur.

Might I ask the Commissioner, I would just take it that his statement extends to the questions that I read to you yesterday on behalf of Senator Glenn?

Mr. ROBERTS. Yes.

Senator MOYNIHAN. I just wanted to make that a matter of record. I think this is a good solution, Mr. Chairman, and I congratulate you.

Senator BREAU. With that, Mr. Roberts, we excuse you from this hearing, and expect to see you back when we schedule it and notify you in advance.

Mr. ROBERTS. Thank you, sir.

Senator BREAU. We would like to call as our next witness Mr. Stephen Rosenfeld, who is legal counsel to Governor Dukakis of the State of Massachusetts.

Mr. Rosenfeld, we are pleased to have you here and look forward to your testimony.

STATEMENT OF S. STEPHEN ROSENFELD, ESQ., LEGAL COUNSEL TO THE GOVERNOR OF MASSACHUSETTS

Mr. ROSENFELD. Thank you very much. I have a brief statement which I would like to read to the committee.

Good afternoon, Mr. Chairman and members of the committee. I am here on behalf of Massachusetts Governor Michael Dukakis to oppose the Nuclear Regulatory Commission's proposed rule change regarding offsite emergency planning.

On September 20, 1986, Governor Dukakis announced that he could not responsibly submit emergency plans for the Seabrook nuclear power plant because no plans could adequately protect the public health and safety in the event of a radiological emergency. The proposed NRC rule change was spurred in part by the NRC's

unhappiness with the Governor's decision which under the existing rules delayed Seabrook's operating license.

Instead of analyzing and challenging the reasons for the Governor's decision, as is amply provided under current rules, the NRC is attempting to guarantee by rule change the result it wants—namely, that no State jeopardize a nuclear power plant's operating license by refusing to approve an emergency plan, regardless of how justifiable that refusal is or how unlawful and unwise the results of licensing may be.

The rule change is shortsighted and ill-conceived. It violates Congress' mandate that the public health and safety must not be endangered in the event of an accident, and it usurps State and local governments' central responsibility for protecting the health and safety of their citizens—a responsibility historically and prudently entrusted to them under our Federal-State allocation of government powers and responsibilities. Finally, by permitting economic considerations to influence the NRC's licensing decisions despite a decade of assurances from the NRC that fiscal issues would not be relevant in judging the adequacy of offsite planning, the proposed rule shamefully subordinates our citizens' health and safety to a utility's financial interests.

For all these reasons, the Governor urges the committee to prevent this ill-conceived proposal from becoming a reality and to help preserve the emergency planning rules in their current form.

The NRC claims that the proposed rule change was made necessary by the States' lack of cooperation in emergency planning, which unduly burdens the nuclear licensing process, in its view. In essence, the NRC asserts that any State decision not to submit an emergency plan constitutes willful obstruction.

However, under current FEMA regulations a State is not only not required to submit an emergency plan, a State is bound to withhold its participation unless it can certify that there exists an emergency plan which, in the Governor's judgment, is adequate to protect the health and safety of citizens living within the emergency planning zones. Governor Dukakis could not in good conscience certify that any emergency plan would adequately protect Seabrook-area residents. Consequently, he did not submit a plan.

The Governor's conclusion was based on years of hard work and interaction with Federal and local safety officials. It was reached because the conditions at Seabrook, principally weather conditions, inadequate sheltering, and grossly insufficient exit routes, make protection through planning and evacuation inadequate and make high dosage of radioactivity foreseeable in case of a major accident.

His decision not to submit an emergency plan was, in short, based strictly on the merits. It resulted from the Commonwealth's meticulous participation in the FEMA planning process, not on any refusal to cooperate in that effort. The NRC's proposed rule change would simply, by fiat, categorize such participation as obstructive. This is an extreme and desperate attempt to guarantee licensing to nuclear power plants at the expense of public health and safety, and is wholly inconsistent with the post-Three Mile Island awakening to the pressing need for offsite emergency planning.

Part of that awakening was Congress' own requirement in the 1980 NRC authorization act that rigorous emergency planning be a

condition of licensing for all future nuclear power plants. In requiring such planning, Congress was interested in results, not best efforts. It hinged licensing on an affirmative showing that the public health and safety was capable of protecting lives. To ensure health and safety, Congress mandated that State and local governments play a central role.

The NRC's proposed rule change sets a far different course. In FEMA's own words of warning in response to this proposed rule change, it said that the proposed change places the utility in the driver's seat and requires only a showing that the utility has tried its hardest to develop an offsite emergency plan, rather than a showing that the emergency response plans it has developed will protect health and safety. The accent is on "achievable dose reduction," a far cry from the congressional threshold demand that reasonable assurances be given that health and safety not be endangered.

By focusing on achievable dose reduction, a standard of relativity that emphasizes efforts rather than results, the rule change permits licensing even if the surrounding population is endangered. This is not what Congress had in mind in 1979 and 1980. In our view, it reflects a tacit concession that Governor Dukakis' decision not to submit an emergency plan was unassailable on its merits; that if the merits were litigated under the current fair standards, Massachusetts would prevail and the utility would lose.

In attempting to justify its proposed rule change, the NRC asserts that emergency planning is, in the end, of secondary rather than primary importance. This assertion breaks radically from the express intent of Congress and the NRC to heed the lessons of Three Mile Island and focus intense and primary attention on emergency planning, an intent made clear in legislative and administrative history.

A May, 1979 Senate report expressing great dismay at the low priority accorded State emergency planning by the Commission, declared that the low probability of a nuclear accident could no longer be allowed to justify less than priority treatment of emergency preparedness. The final 1980 rules reiterated the primary and essential importance of emergency planning. In short, no basis exists in legislative or administrative history for the Commission's new assertion that emergency planning is now of secondary importance.

The Commission seeks to rationalize lowering the level of emergency protection by claiming that, in approving the 1980 rules, it did not anticipate that State and local governments would refuse to cooperate with emergency planning. Its claim is unfounded. Legislative and administrative history shows that both Congress and the NRC did consider the possibility that States might not submit emergency plans, but opted to remedy the absence of State plans in other ways than by compromising the standards of protection.

Congress squarely faced the problem of State failure to participate in emergency planning, and was well aware that States could refuse to submit a workable plan. In its final rules, the NRC itself recognized the possibility that State and local governments might not submit plans, stating in clear and unequivocal terms that State control of offsite emergency planning is equivalent to local zoning,

land use, and other similar restrictions, all of which vest in State government the power to stop development and operation of facilities that would, in the State's judgment, jeopardize the public health.

The remedy chosen by the NRC at that time was an adjudicative one, focusing on the merits of the particular State's decision not to proceed. Massachusetts stands ready to test these merits before the Commission and, if necessary, in the courts.

Former NRC Commissioner Peter Bradford has confirmed our position that the NRC considered the possibility of State noncooperation when it passed the 1980 rules. In a statement last month, he said the NRC's "statements to the effect that the Commission assumed in 1980 that all State governments would cooperate are absolutely wrong," and that the Commission expressly addressed the possibility that a State might render a plant unlicensable. The NRC must not now be permitted to rewrite history to guarantee a nuclear license.

The NRC's true motivation for the proposed rule change is to salvage utilities' investments in plant construction. Such financial interests have always been and should continue to be irrelevant to the NRC's licensing determination, which must be based exclusively on considerations of health and safety. The NRC has repeatedly assured Massachusetts that such considerations would not enter the licensing decision for Seabrook, but the NRC is now doing its best to break its promise.

The NRC seeks to change its rules out of what it calls "equity and fairness" to a utility that, in its words, has "substantially completed construction and committed substantial resources to a nuclear plant and then, after it is far too late for the utility to reverse course, the State or local government opposes the plan by noncooperation in offsite emergency planning." The record on Seabrook reveals the absurdity of this statement.

For 13 years Massachusetts has contended consistently and in every available forum that the Seabrook facility is inappropriately sited in a location that cannot be evacuated. Massachusetts officials have argued that to avoid spending billions of dollars for naught—precisely the risk cited in the proposed rule change—emergency planning should be addressed early in the licensing proceedings. They feared, rightly so it seems in retrospect, that the investment of such tremendous resources would compromise the NRC's objectivity if these issues were deferred until the operating license stage.

The NRC rejected these arguments at the time, stating in clear terms over several years that under the law it could not and would not consider a utility's expenditures and investment when determining whether to issue an operating license. At this late stage, protecting the utility's investment cannot conscionably be invoked to justify changing the rules.

Finally, we want to emphasize that giving State and local governments primary responsibility for emergency planning is not only in keeping with our Federal system, it follows plain common sense. Repeated practical experience in dealing with major national issues establishes that the most prudent approach to protecting

the health and safety of citizens is through State and local responsibility.

Congress acted prudently when it followed traditional tenets of federalism here, giving the Federal Government exclusive power where uniform regulation was deemed necessary but leaving to State and local control those issues that turn on local conditions. Congress rightly determined that the complex technical aspects of nuclear power development, including plan design and safety standards, require uniformity and technical expertise and should be vested exclusively in the NRC. Congress also rightly recognized that emergency planning requires the flexibility and knowledge of diverse local conditions that are the province of State and local governments.

The States are closer physically both to their citizens and to the hazards that endanger their health. States can best judge the adequacy and feasibility of plans to address local emergencies. Their superior knowledge of and experience dealing with the demography, road conditions, traffic patterns, prevailing weather patterns, and numerous other uniquely local factors, make their judgment most worthy of respect and deference. Their more intimate knowledge of their citizens ensures more accurate prediction of likely local reaction to a full-scale emergency. Relying on the States to evaluate and, if appropriate, implement emergency response plans in nuclear emergencies is the only course likely to assure protection of the public health.

Congress has repeatedly recognized the efficacy, when forging national health policy, of leaving the States to deal with local conditions. The field of environmental protection is a powerful and particularly relevant example. Every major statutory program designed to protect the people from environmental health hazards—the Clean Air Act, the Clean Water Act, the Toxic Substances Act, and many, many others—vest primary implementation and enforcement authority in the States, and they do so in language too clear to question.

In fact, the only time Congress retains Federal control over an implementation and enforcement of health-related statutes is when a health risk so completely transcends State boundaries that the need for uniform national enforcement supercedes the effectiveness of separate State solutions. Such national consistency is essential, for example, in the regulation of prescription drugs, where interstate production, sales and use compel national standards and uniform enforcement.

No such uniformity is warranted here. Every locale is unique insofar as the specific emergency plan that is needed. Congress saw this reality quite plainly when it adopted the emergency response provisions as it did in 1980.

For all these reasons, every effort should be made to discourage and, if necessary, prevent the NRC proposal from becoming a reality. Massachusetts seeks the assistance of Congress in this vital task, and we thank you very much for taking the time to listen to us.

Senator BREAUX. Thank you very much, Mr. Rosenfeld, for your presentation this afternoon.

Some could make the argument or would make the argument that the Seabrook facility, with two container vessels, is far safer than some of the other nuclear plants that are currently operating in your State of Massachusetts with approved emergency plans that have been approved by your State, and that the decision of Massachusetts to not participate in a similar plan for this plant, which again some would argue is far safer, is just an arbitrary and capricious position of the State. How do you justify the difference?

Mr. ROSENFELD. Well, the Congress, Mr. Chairman, recognized back in 1979 and 1980 that there was a difference, just a plain practical difference, between already operating plants and new plants, which is not to say that already operating plants deserve an exemption but we do have a different situation. As a matter of fact, this is why with new plants the States were given a special role that they were not with already operating plants. We have some contribution, under the act of Congress and the NRC rules, we have some contribution to make with regard to plants already in operation, but we do not have the same central role in certifying whether a plan can be made adequate as we do with new plants.

Senator BREAUX. Well, you certainly still have an obligation to participate in update and biannually with safety emergency plans with the existing plants, and I take it the State is continuing to do that on existing plants, which are older and probably less up-to-date—probably, quite frankly, less safe because of the container vessels they did not have—and Massachusetts in those instances says it's fine: "We agree with this emergency plan. We accept it. We think it meets the standards of reasonable assurances on public safety."

Yet on a more modern facility, which I think most people would agree is safer than the older models, the State has decided not to do it. You still have involvement in both of them. One, you have said, "We are going to continue to work with you. We agree with what you are doing." Yet when NRC tries to put forth the same type of plan with a newer, more modern, safer facility, Massachusetts now says, "No, we've changed our minds." How can you say it for one thing but not for the others?

Mr. ROSENFELD. Well, I spoke a moment ago about the situation insofar as authority is concerned. You are speaking, Mr. Chairman, about just the plain practical facts, and I agree that there is an obligation to look at all plans insofar as the practical fact of offsite safety. This is precisely why with our Pilgrim plant, which is located in a different part of the State, in Plymouth, the Governor and civil defense authorities are taking a very, very cautious view as to whether that plant—which is now not operating, it has been shut down for some time—should be allowed to go back on line, and under what circumstances if any such operation should be permitted.

Senator BREAUX. How many plants do you have in Massachusetts that are operating within approved or active emergency evacuation plans?

Mr. ROSENFELD. There is one plant that is in the western part of the State, in a far different climactic situation with a far different situation as far as the surrounding residential areas are concerned.

The primary problem at Seabrook—and I mentioned the Pilgrim plant because it is to some degree similar—is that we have a summer population that reaches very high numbers, as high as 100,000, because it is a beach population and this is a resort and beach area, and it is plain that anyone who takes an objective view of Seabrook will recognize that evacuation during that period is impossible. It is extremely difficult in the winter, given the nature of the roads, but during the summer evacuation is simply impossible, and just coupled with one other serious problem in Seabrook—the sheltering in the 10-mile EPZ is woefully inadequate.

So sheltering is inadequate, evacuation is impossible part of the year and at best difficult the rest of the year. You have a situation, unlike with the Rowe plant in the western part of the State, where health and safety simply cannot be certified by any scenario or any plan that the civil defense authorities could create.

Senator BREAUX. You know there are no absolutes in life. The law doesn't require an absolute finding. It requires a reasonable finding. It is not an absolute standard. The estimates done for the Massachusetts civil defense agency on Seabrook speak to 4 hours and 40 minutes evacuation under normal conditions, fastest time; slowest under adverse conditions of 9 hours, 45 minutes, which certainly puts you in pretty good stead from a time standpoint in comparison to other plants that have been looked at. Is that not reasonable?

Mr. ROSENFELD. Well, our point is this, Mr. Chairman. We want to be tested on our individual decision. We are ready to take up that challenge in any objective form, and that is precisely—

Senator BREAUX. Is the State willing to participate in developing a plan and having it tested with the cooperation of the State?

Mr. ROSENFELD. My point is this, that the proposed—

Senator BREAUX. What about my question?

Mr. ROSENFELD. Oh, sure. We have participated in attempting to develop a plan for several years. As a matter of fact, the plan as I understand it that the utility has submitted on its own at Seabrook really borrows, in almost complete part, from the preliminary work that civil defense authorities in Massachusetts did.

Senator BREAUX. The question then is, would the State of Massachusetts—speaking to that point, you say they have used some of your ideas—would the State of Massachusetts be willing to participate with the NRC and FEMA in testing that plan in a cooperative manner?

Mr. ROSENFELD. Well, the test of a plan under current rules proceeds on the premise that the Governor has certified that the plan, if tested out to do what it proposes to do, would be adequate to safeguard health and safety. The Governor has reached the judgment that the plan in question cannot so be certified.

Senator BREAUX. But has he not made that decision without a test? Has he not made that decision without the State's civil defense participating in a test with the NRC?

Mr. ROSENFELD. That is quite right, because the test follows the Governor's certification that the plans are adequate.

Senator BREAUX. How can it be certified if it hasn't been tested under circumstances that would be agreeable to the State?

Mr. ROSENFELD. Mr. Chairman, if there were a rule change that proposed that before the Governor certified a plan, the test should first be done, we would have a different situation than we have today.

Senator BREAUX. Well, let me ask you the question: If the rules are changed, would the State of Massachusetts now be ready to participate with the NRC on the utility-proposed plan to see if it works, in cooperation with the State?

Mr. ROSENFELD. If the rules had been changed——

Senator BREAUX. Assuming we change the rules to allow the utility-proposed plan to be tested by the NRC, in cooperation with the State of Massachusetts civil defense or whatever authority governs in that area, what would be the position of the State?

Mr. ROSENFELD. The position of the Commonwealth of Massachusetts is that for the past 12 years we have played by the NRC's rules. We have followed those rules completely and rigorously, and any effort now to do anything other than to test whether or not the work that we have done fits with the current rules is unfair to Massachusetts and its citizens.

Senator BREAUX. Let me ask the question again: If the rules are changed and the NRC says, "We would like to test the utility plan with cooperation from the State of Massachusetts," is the State of Massachusetts saying, "We are not going to cooperate"?

Mr. ROSENFELD. The State of Massachusetts is not saying that it would or would not cooperate.

Senator BREAUX. Isn't that the gist of what we're talking about. You've got a plan you say you don't think is going to work. I say test it; bring the State into the test and let the State participate and see if the plan will work. If the test shows that it doesn't work, well, then the assurance of reasonable safety is not there. If it does work, we can make an argument that it's a reasonably safe plan, but you are saying that your State is not going to participate.

Mr. ROSENFELD. No. Mr. Chairman, what we are saying is that the current Nuclear Regulatory Commission is bent on licensing this plant regardless of the facts.

Senator BREAUX. I am offering you a hypothetical, and the hypothetical is, the utility plan that is in existence right now, that is being proposed for a public hearing, take that plan and have the NRC say, "We want to test this plan"—no preconceived notions as to whether it is good or bad, workable or not workable, but take that plan and go to the Governor of Massachusetts and say, "Governor, we would like to test this plan." Are you telling me that the State of Massachusetts would say no to that suggestion?

Mr. ROSENFELD. What I am saying, Mr. Chairman, and the Governor's statement of September 20, 1986 I think makes this very plain——

Senator BREAUX. Yes or no.

Mr. ROSENFELD. Well, I am going to answer your question, if I may, because if nuclear safety could be reduced to yes or no answers, it would achieve a simplicity that unfortunately it doesn't have.

Senator BREAUX. I am talking about whether you are willing to participate in testing a plan. That does allow a simple answer.

Mr. ROSENFELD. But the Governor's decision in September was that if its own plan, which it considered the best available plan, were tested and worked, it would still prove inadequate to avoid endangerment of the population.

Senator BREAU. How do you know until you test it?

Mr. ROSENFELD. Well, we are willing to assume, for example, the 4 hours and 40 minutes which is assumed to be the evacuation time. What the decision of the Governor states is, if that is how long it takes, under the information that our experts provided us we would have serious dosage of the surrounding population.

Senator BREAU. What is wrong with the State of Massachusetts participating actively in a test to see if the time may be cut in half or reduced by an hour?

Mr. ROSENFELD. No one claims that. The utility doesn't even claim that, Mr. Chairman.

Senator BREAU. We don't know until we test it. You are saying you won't participate in a test because someone in your government has made a decision that it's not going to work. I am saying why doesn't the State say "We want to test it" and participate in the test? If you don't want to do anything to see if the test is going to work, we will never be able to make that determination.

Mr. ROSENFELD. The working of a test, Mr. Chairman, is not so much the issue as whether or not, if the test works, will serious dosages occur or won't they occur?

Senator BREAU. Well, I think the refusal of the State—and this is one person's opinion—to participate in testing the plan because you think the plan won't work, doesn't make a lot of sense. How do you know it's not going to work until the plan is at least tested?

Mr. ROSENFELD. Mr. Chairman, with respect, we may have very different views as to what it means for a plan to work or not. We can evacuate the entire population under the best conditions by 5 hours, and because of the climatic situation in Seabrook, have serious dosages with injury to the surrounding population. Is that a plan that works? We don't think so.

Senator BREAU. But you refuse to participate in giving it a try to see whether it's a reasonable, workable evacuation plan. That's what you are telling this committee.

Mr. ROSENFELD. That is not what I am telling this committee, Mr. Chairman, but I appreciate your hearing us.

Senator BREAU. Well, then let me continue to question. If we make a proposal and get the NRC to make a proposal this week to the State of Massachusetts, to take the utility plan and to participate in a test to see if it is workable, what would the State of Massachusetts' answer be?

Mr. ROSENFELD. The State of Massachusetts' answer would be this: That the NRC has had a set of rules. We have followed those rules for a dozen years. This isn't any change of position, as was claimed this morning. The record is very clear that Massachusetts has taken a consistent view. The NRC has a set of rules. We have followed those rules. We asked the NRC, "Why can't you see those rules through to the end? Meet us on your own ground."

Senator BREAU. Your answer is very clear.

Senator Moynihan I guess has no questions.

Mr. Rosenfeld, we thank you for your participation.

Mr. ROSENFELD. We appreciate your letting us come before you today, Mr. Chairman. Thank you very much.
[A letter from Mr. Rosenfeld follows:]



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May 19, 1987

Senator John R. Breaux, Chairman
Nuclear Regulation Subcommittee
194 Dirksen Building
Washington, D.C. 20510

Dear Senator Breaux:

Since appearing before the Nuclear Regulation Subcommittee on Thursday, May 7, 1987, I have given some further thought to your probing questions regarding testing of emergency plans. I would like to make clear that we would welcome your active involvement in trying to resolve what has become a very difficult issue for the Commonwealth of Massachusetts. Unfortunately, the history of the treatment of Massachusetts' objections in the Nuclear Regulatory Commission has left us with such a residue of distrust for the objectivity of the NRC that any proposal takes on an ominous tone if it involves allowing the NRC to make judgments about the health and safety of our citizens.

Our uneasiness over testing is based on both a major flaw in the existing regulations, and the outcome-oriented attitude of the NRC majority regarding emergency planning. Under the existing regulations, if a governor submits plans for a full participation exercise under FEMA supervision, the governor forfeits any right to make a determination of the plans' adequacy based on the results of the exercise. Under such circumstances, a governor will have granted, in effect, a perpetual approval to the emergency plans regardless of how ineffective they may prove to be in a full-participation exercise.

This is precisely the situation with the New Hampshire plans. The State of New Hampshire submitted Seabrook emergency plans to FEMA in 1985, after the Civil Defense Director of New Hampshire certified that the plans were in

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his judgment adequate to protect the health and safety of New Hampshire residents. On February 26, 1986, FEMA and the State of New Hampshire conducted an exercise on those plans. The exercise revealed an extraordinary number of deficiencies in the New Hampshire plans, so many that FEMA found itself unable to make findings on the adequacy of the plans prior to the Atomic Safety and Licensing Board (ASLB) ruling on Seabrook. In our judgment, FEMA acted quite properly. New Hampshire has since attempted to correct its deficiencies through a new plan. Yet, there is no doubt that the ASLB, under existing regulations and based on current ASLB case law, has the power to overrule FEMA in this instance and make a finding of adequacy, and there is no question that New Hampshire has forfeited its right to refuse to certify, or to withdraw the plans it had previously thought were adequate. This is not a tolerable situation for a state concerned about health and safety.

The NPC's outcome-oriented attitude towards emergency planning is best illustrated by its recent reversal of its oft-repeated promise not to consider financial interests in the licensing decision. Our experience forewarns us that any testing would be used by the NPC as a basis for licensing notwithstanding our own judgment, or FEMA's judgment, of the inadequacy of the plans.

In contrast with the NRC, our dealings with FEMA have been far more constructive. We believe that it is FEMA, with its general emergency planning expertise, that should review the governor's judgment at the federal level as to emergency planning, not the NRC. Your testing proposal is one that would make good sense, and fit well within our federal-state allocation of functions, if it were to include testing as among those early steps to be taken within a state, under the guidance of FEMA, prior to the governor's decision on submission of an emergency preparedness plan and prior to the issuance of a construction permit. The results of testing would be part of the record that would tend either to support a governor's emergency planning decision or to weaken it. Under such a system, there would be no reduction in the state and local role in offsite emergency planning.

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We continue to believe the NRC's proposed rule change, which prompted the May 7th hearing before your subcommittee, is a wholly inappropriate vehicle on which to change the testing process, and is nothing more than a last-minute attempt to guarantee licensure for financial reasons at the expense of safety.

We would welcome the opportunity to discuss with you the implications of any changes in the testing process. We continue to believe that in the case of Governor Dukakis' decision in Seabrook, even were testing to be conducted, any objective analysis -- whether by Congress, the agencies, or the courts -- will show the Governor's decision to be correct.

Again, we appreciate your concern and your inquiry, and would like the opportunity to talk with you further about the important issues you have raised.

Sincerely,

S. Stephen Rosenfeld

S. Stephen Rosenfeld
Chief Legal Counsel

SSR:tkr
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Senator BREAUX. We would like to invite our next panel consisting of former NRC Commissioners including the Honorable John Ahearne, the Honorable Joseph Hendrie, and the Honorable Victor Gilinsky.

We welcome you and are pleased to receive your testimony. Mr. Ahearne, we have you listed first, if you would like to go ahead, we would be pleased to receive your testimony.

**STATEMENT OF JOHN F. AHEARNE, VICE PRESIDENT,
RESOURCES FOR THE FUTURE**

Mr. AHEARNE. Thank you, Mr. Breaux.

My first comment is that my comments are not going to be on whether the current distance for the emergency plan is correct. A lot has been learned in the 7 years since it was published, and I have not kept up in detail with the changes in source term knowledge and revised reactor systems. Consequently, it is possible that the current distance should be revised, but that is not the issue that I am going to address.

The current proposal of the NRC makes it clear in their statement that it is not based on any new knowledge. As a consequence, I feel comfortable in addressing at least the rule that is proposed. I will address four points: my understanding of the perceived necessity for the proposed change; a few comments on the proposed change; what, as far as I know, did the Commission believe at the time the rule was passed; and what is, in my view, the fundamental difficulty with the proposed rule change.

First, frustration. It appears that the principal reason for reconsidering the rule is the frustration felt by the current Commission over the difficulties of getting local or State government officials to meet some of the fundamental steps assumed in the emergency planning rule. These officials include the Governor of New York, the Governor of Massachusetts, as well as the appropriate county legislative and associated elements on Long Island.

The original emergency planning rule assumed that State and local authorities would participate in the planning. It is clear that the rule presumed that State and local authorities would submit an emergency plan to FEMA which FEMA would review. This was to reflect the position that the NRC isn't the organization with expert knowledge on emergency planning outside the plant, but rather FEMA is.

The existing emergency planning rule then has the local or State authorities doing their best to develop an emergency plan and, once this best effort is done, the plan or plans are submitted to FEMA for review and comment. Sometimes FEMA will provide comments to improve the plan. FEMA may also reject the plan. It is possible that an emergency plan cannot be developed, but such a judgment should be reached after a best effort is reviewed by FEMA.

In recent years several local or State governments have refused to submit plans for FEMA to review. Thus the local authorities appear to be unwilling to let FEMA examine a best effort. Apparently the level of frustration felt by the Commission at this block-

ing of the rule has led to the current proposal. Such frustration is understandable.

Second, seven short comments on the proposed rule: First, what is now happening is not contrary to my expectations when I participated in putting out the rule. I did not know what to expect. It certainly is contrary to my hopes.

Second comment: I judged the regulations that we promulgated at the time were necessary for adequate protection of the public health and safety. I judged it was a reasonable exercise of NRC authority because these regulations were directly linked to public health and safety. I hoped State and local governments would cooperate, but the question of reasonable exercise premised on the belief of cooperation, which is stated in the NRC revised information, was not the basis in my case for passing the rule.

Third, there was a discussion on the Commission as to whether or not State and local governments would, in effect, hold a veto over the operation of plants. There were in particular, as I recall, some industry groups that expressed this as a strong concern. That State and local officials would endeavor to cooperate, however, was not part of my premise as to why I believed the rule was a reasonable exercise of NRC authority. The authority was exercised on the belief that to have such plans is necessary for public health and safety.

Fourth, the absence of State or local government cooperation does not only, in my view, make it more difficult, it makes it impossible in the United States to demonstrate that an emergency plan will be effective. It is unfortunately true that State and local governments then can essentially veto operation of a plant. It is not unlike the control that State and local governments now have through environmental siting situation.

The situation in the U.S. is different than that in a country such as the Soviet Union. In the latter, the federal authority is the principal local police power and consequently can organize emergency planning quite effectively. A rapidly-developing emergency in a democracy like the U.S. is handled by the local or State authorities. That is our form of government. It is a very good one.

Fifth, words that the NRC's proposed rule discussion uses—equity, fairness, cost to ratepayers, stockholders—they are quite important, and they are important issues for local voters, for PUC's, for FERC and for the Congress. But for the NRC these issues don't rise to the level of importance of public health and safety. Unless there has been a change in the Atomic Energy Act that I missed, such considerations, frustrating as it may be to the Commission, fall outside the legal responsibilities of the Commission.

The existing method by which FEMA examines the adequacy of an emergency plan is the only one that I believe is consistent with reality. In the U.S., active participation is needed by State and local governments to handle emergencies, and FEMA is the appropriate Federal agency to judge the adequacy of such preparation. [Note: This phrase is in what I read from—I thought I read that section, but may not have.] The real issue is whether the Commission can determine that there is reasonable assurance that the public health and safety will be adequately protected—not whether

the utility, through being thwarted by local officials, has made a multibillion dollar investment which cannot be recovered.

Sixth, certainly the Commission is well aware of the differences between immediate and gradual implementation. The proposed rule makes an argument about that is a fundamental difference, and therefore the planning for emergencies is a secondary issue. Now based on the time to accomplish and the probability that they will be called upon in the near future has always been part of many NRC rules.

The author of the draft rule must well know that the Commission in 1980 was trying to explain why immediate shutdown wasn't necessary—explain that to an audience, including judges, who had been traumatized by Three Mile Island, didn't understand probability, didn't understand risk analysis. Nevertheless, emergency planning was decided to be of fundamental importance. The 1980 Commission wrote, when putting out the rule,

It is clear, based on the various official reports described in the proposed rules and the public record compiled in this rulemaking, that onsite and offsite emergency preparedness, as well as proper siting and engineered design features, are needed to protect the health and safety of the public . . . the Commission has therefore concluded that adequate emergency preparedness is an essential aspect in the protection of the public health and safety.

And finally, seven, the Commission in the new rule writes, "The practical effects of the Commission adoption of option two—a rule change—are difficult to estimate, but the Commission believes that the level of public protection associated with option two"—which is the new rule—would not be significantly different from that provided by the current regulations. I suspect the Commission truly believes that.

The reason they believe it appears to be that the Commission believes that the obstinate State and local governments actually will participate, for in the discussion of the proposed rule the Commission states, ". . . if a plant began operation under the circumstances permitted by the proposed regulation change, . . . it seems reasonable to expect that the governments involved more likely than not would change their position and cooperate in planning." Now my interpretation of that is that they believe that blackmail will work.

The Commission goes on: ". . . the Commission believes that State and local governments which have not cooperated planning will carry out their traditional public health and safety roles, and would therefore respond to an accident." In other words, the Commission expects that the State and local governments that haven't planned and haven't exercised would, however, in the case of a real emergency, do what is necessary for them to do. In other words, it is necessary for the State and local governments to handle an emergency.

The Commission also writes: ". . . any interim period after commencement of plan operation during which noncooperating governments may reevaluate their position may be short." I read this as the Commission continuing to try to argue that even if the rule is put in place, the State and local governments will actually end up doing the planning. The inherent flavor is, "They'll come around."

Third, speaking to the original Commission position, obviously I can only speak in recollection for myself. My two colleagues on the left will obviously well speak for themselves. But for myself, I recognized that State and local governments could have a veto. But I also recognized that unless the form of government in the U.S. were to change, the veto possibility was a necessary condition for the use of nuclear power. I believed then and I believe now that adequate emergency planning for a reactor whose accident could lead to the necessity for emergency actions being taken offsite, requires the involvement of offsite authorities.

Thus, the difference between the Commission when the rule was passed and the Commission promulgating the proposed rule is not a recognition now of the essential veto power held by State and local governments. It is also not an appreciation that nuclear power plants are very expensive. And it is also not the recognition that political leaders sometimes act in ways to maintain support for their popularity rather than act out of frankly stated principles. The fundamental difference I perceive between the Commission then and the philosophy in the proposed rule is the apparent belief that accidents will not happen. That, I believe, is the worst implication of the proposed revision.

Four, I see a stark anomaly in the change. In perhaps an area that is the hardest to do emergency planning, in the middle of Long Island, where such a plan could only go ahead with the active cooperation of the local governments, the Commission is proposing a rule that would have an emergency plan that cannot be exercised and will not be developed with the active cooperation of the local authorities. But if such isn't needed in Long Island, why is it needed anywhere.

So although understandable frustration seems to have precipitated the proposal, I believe there are only three possible arguments for the proposed rule: First, the dollar cost to the utility is so large when a completed nuclear power plant isn't allowed to operate, that it overwhelms other considerations. Second, State and local governments will back down if the Commission plays a game of chicken; or third, accidents will not happen.

Now any of those alternatives are distressing. Commissions have often reiterated that the dollar costs are not relevant for something that is fundamental to public health and safety, and this is. Second, the political science implications of a Federal commission attempting to coerce State and local governments to take an action transcends the Shoreham Commission dispute and transcends potential Presidential election politics.

I really fear that what the proposed rule implies, and will certainly lead to an inference, is that nine years after Three Mile Island and in spite of Chernobyl the U.S. Nuclear Regulatory Commission has concluded that a major nuclear power plant accident cannot happen.

The U.S. nuclear power industry has been plagued by incompetent management, poor operating practices, terrible maintenance, shoddy construction—all results of the general nuclear community's belief that accidents couldn't happen. This belief was shared amongst the NRC and its predecessor agency, the nuclear industry, and the Congress. Three Mile Island shattered that attitude. At the

time some of us were concerned that this effect was a saw tooth and not a permanent change. Sadly, the Commission's proposed rule suggests the pre-TMI complacency is returning.

Obviously, I strongly urge the Commission reject its proposed rule. Given the background for the proposed rule, it is not a question of whether a smaller source term is possible. My argument for rejection is based on the reasons I have just given. I think it is far more important an issue than whether a local governor with responsibility for a very small part of an emergency planning zone can block a plant which is supported by the Governor of the State in which it is located. I think it is an issue that is fundamental to the safe operation of nuclear technology.

My final comment is, Mr. Breaux, I thought your suggestion was right on, in your discussion you had with the representative, because I do believe that the issue is, will the local government do their best effort to develop a plan, and then let's see whether the plan will work.

Senator BREAU. Thank you very much.

Next, Mr. Hendrie?

STATEMENT OF JOSEPH HENDRIE

Mr. HENDRIE. Thank you, Mr. Chairman. I came on short notice, and you have therefore the benefit of not having a prepared written statement from me. I would like to make a few remarks.

I will have to speak for myself, as John has for himself, on what we had in mind when we passed the emergency planning rule and put it out for comment in 1979. It seems to me it went out while I was chairman, but I know it was adopted while John was chairman, so we will regard it as his rule.

I think there is no question that we all recognized that in requiring States and localities to present an emergency plan, have it reviewed, have it meet certain standards, that we were offering the opportunity of a veto by State and local authorities on a plant. That was something that was commented on by a number of people. It was pointed out by the GAO in its literature. We discussed it at hearings before this body and on the other side of Capitol Hill.

My own view about that problem was that it was a serious problem but it was a future one. I felt that we needed an improved emergency planning rule and we needed it pretty quickly. I fervently hoped that State and local officials would act responsibly in this regard, and would not haul this public protection measure, emergency planning, to the political arena and use it as a tool back and forth for political purposes, but I recognized that it could happen.

My feeling was that down the line if it became a problem we could adjust the rule in some way to take account of it. Rules are not chipped in stone when they are instituted by the NRC or any other agency. As time goes on, you often find things about the practice of a rule which makes it appropriate to consider amendments, and my view was that with regard to this question of State and local body vetoes through the emergency planning participation route, that as appropriate and necessary down the line, the

Commission would have to amend the rule to take account of that in some fashion.

Now as a matter of fact, it has worked out pretty good. We've got over 100 units operating, and only for two has it turned out to be a significant problem, so you could say that the batting average is really pretty good. Nevertheless, we have these two egregious cases where it really is very difficult.

My view is that the Commission's proposed rule is one way to deal with that. Another way would be for the Congress to consider legislation which dealt with the question of whether or not State and local officials are to be given a veto over plant licensing—over Federal licensing, if you will—and I suspect you ought to consider Federal licenses for things other than nuclear power plants if you want to consider that kind of legislation. But that would at least address the question in a very direct way, rather than using this funny business through, "I won't participate in emergency planning; thereby, I prevent you from licensing this plant," when the proponents of this view have not been able to carry that argument on its merits in the appropriate administrative forum.

I think the proposed rule would have no effect in most cases because most State and local officials participate in the planning and are happy to do so. I think in the two cases where that presently is not so, that our knowledge of possible accident effects, the possible range of offsite consequences, is considerably improved over 1979. I think if we were recasting the emergency rule in the light of present knowledge, it would look different in a number of aspects than as it stands, and I think a utility plan can be adequate for these purposes.

It's obviously better if the offsite authorities participate, but I must say if the local authorities in an area choose not to participate, as far as I am concerned they are saying, in effect, "Whatever can be provided by the NRC and the utility is good enough for our citizens." It seems to me an abrogation of their responsibilities as public officials.

As I say, this rule seems to me one way to deal with the problem. It is the proposal on the table and I support it on that basis. Thank you, Mr. Chairman.

Senator BREAUX. Thank you very much, Mr. Hendrie.
Mr. Gilinsky?

STATEMENT OF VICTOR GILINSKY

Mr. GILINSKY. Thank you, Mr. Chairman.

There are no easy or entirely satisfactory answers to the current impasse over the NRC's emergency preparedness requirements, but whatever the right answer is, it's definitely not the NRC's proposal to water down the agency's rules. Let me begin by saying the immediate issue here is not who is in charge of approving nuclear plant operation. Clearly the NRC is in charge. The question is, what criteria will the NRC apply in granting such approvals?

The current criteria of course grew out of the 1979 TMI experience, after which the Commission decided that the Atomic Energy Act's standard of adequate protection had to embrace readiness to shelter and evacuate people around an accident. The Commission

believed that such offsite readiness could not depend on improvisation, as it had before that. It required effective plans for State and local government actions, trained State and local staffs, and periodic exercises to make sure the plans would work.

Now it's all very well to talk about Federal preemption but, as Mr. Ahearne pointed out earlier, there was and is no Federal alternative in the neighborhood of power plants to the police powers of local and State governments. Without their active involvement, emergency plans around nuclear plants are meaningless.

Now much has been made of the reference in the 1980 NRC authorization act to the possibility of using a utility plan in the absence of a State plan. That would be fine if State and local governments would commit to it, but without such a commitment even the best utility plan is simply irrelevant. The present difficulty is precisely that the States in question refuse to make such a commitment. The States' reasons are that adequate protection can't be provided in the two particular cases. The NRC, of course, disagrees and is looking for a way out.

Now a responsible course, if no accommodation is possible, would be to seek redress in the courts either to compel State performance or for owners to obtain just compensation. It seems to me the compensation issue is a very separate one from the question of safety. It turns on a quite different set of facts, and the two need to be kept distinct.

There may also be reason to seek legislative change, but instead the NRC has proposed dropping the current requirement for State and local government conduct of the emergency preparedness process, which would bring us back to where we were before TMI, only now we should know better. This course might have had some plausibility if the NRC had come forward with new safety information which justified relaxing emergency preparedness standards, but the NRC's statement proposing this rule makes a point of stating that the new proposal is not based on new safety information that would suggest less need for this form of public protection. In fact, recent events suggest just the opposite.

Instead, the NRC has fallen back on a legal argument. The agency argues that State and local refusals in the two cases were not contemplated at the time the present rule was approved. I think Mr. Ahearne and Mr. Hendrie made clear that that was not the case. We were quite clear in 1980 about the consequences of relying on State and local governments for the necessary increase in emergency preparedness.

The NRC also rationalizes dropping public protection on the grounds that this would be temporary. Once the plants are running, the argument goes, the Governors and their citizens will have much to gain and nothing to lose by cooperating, and it won't take them long to give in because the Governors will want to reduce the risks to their constituents.

What the Commission is saying, in effect, is that it will hold the public around these plants hostage to the performance of the Governors. Until they fall in line, the Commission proposes to allow their constituents to be subjected to higher accident risks. Now that is not what one expects from an agency charged with protect-

ing public safety, and it seems to me the NRC would be wise to turn away from this course promptly.

Ironically, I think the amendment is likely to have an effect opposite to that intended. It probably won't do much to get the two plants running. It will bog down in legal argument. But what the proposed change would do is to fix a public impression that for the NRC, plant operation comes before public safety, and that is not going to enhance public support around the 100 or so plants where emergency preparedness is working smoothly.

Thank you, Mr. Chairman.

Senator BREAUX. Thank you very much, members of the panel.

Mr. Gilinsky, on pages 2 and 3 of your statement, I note at the bottom of page 2 that you say, Instead, the NRC has proposed dropping the current requirement for State and local government conduct of the emergency preparedness process. That would bring us back to the pre-TMI situation. But is it not true that the law that allows for the second category of emergency preparedness plans, that would allow a utility plan which provides for reasonable assurances that public health and safety is not endangered, that was done after TMI, was it not?

Mr. GILINSKY. That's correct, Mr. Chairman.

Senator BREAUX. Isn't it inappropriate to say that we are going back to something that was pre-TMI but is being proposed by the NRC as pursuant to laws that Congress passed after TMI, that said if you can't get number one—which would be a State or local preparedness plan—then you can go to option number two, which allows for a utility plan? That was all done after TMI, so when we have a utility plan now being proposed for public comment, we are acting—they are acting, NRC is—based on laws that were adopted subsequent to TMI.

Mr. GILINSKY. I would read that, Mr. Chairman, to say that the basis of preparedness around the plant could be a utility plan if State and local government followed that plan. I don't read that to say that it is acceptable to have no State or local government participation. Just as a matter of common sense, it is impossible to reach that finding.

Senator BREAUX. Well, when this law was passed, it seems like it says to me you have a State plan, a local plan or a utility plan, and that it doesn't have to be an absolute plan. It has to be one that provides a reasonable assurance, not absolute assurance.

Mr. GILINSKY. Right, but which provides "reasonable assurance" that public health and safety is not endangered by the operation of the facility concerned. Now I don't read that to mean you can have a plan on the shelf somewhere, developed by someone, which is not employed by the people who would have to employ it in an emergency.

Senator BREAUX. Well, we have, and that's where the conflict is. In some situations NRC says that this plan could work, and the State says it won't work. My question to the previous witness is, why don't we take that plan and have the State participate in testing it to get the answer and decide between the NRC, which is waiting for a decision, and the States who say it won't work and the utilities who say it will? What do you think about that suggestion?

Mr. GILINSKY. Well, I think your proposal to the gentleman earlier was a reasonable one. I think, as I said earlier in my testimony, it's perfectly fine to use a utility plan, whether or not the law specifically authorizes it, but the key question has to be whether the people who would have to conduct the actions necessary in an emergency would have committed to that plan. That means they would have studied the plan, they would have trained with the plan, they would have exercised the plan. Without their involvement, the whole thing is really meaningless.

Senator BREAU. I know it's not your area, but in discussing what you all thought about when you wanted an emergency plan to be prepared, I guess this probably came up. States have emergency plans to evacuate their people for various types of disasters—hurricanes in some areas, floods in some areas, toxic wastes being illegally and improperly disposed in some cases. States and local governments have those plans in place.

Is, in your opinion, the plan to evacuate an area because a nuclear problem far different from an explosion or a fire or anything else? If they already know how to evacuate people, can't we make a reasonable argument that if they know how to evacuate people, they will do it no matter what type of disaster requires the evacuation?

Mr. GILINSKY. Well, they are going to do their best in an emergency no matter what, but when we dealt with this issue back in 1970-1980, we felt that one had to have a special kind of protection in these circumstances. It posed special kinds of problems.

Senator BREAU. Mr. Ahearne?

Mr. AHEARNE. That was an issue, Mr. Breau, that came up a number of times. We looked at previous examples of various cases, chemical evacuations and hurricane evacuations. We talked to a number of State and local people, and at the time the principal contact at FEMA was a man who had run the State emergency services for South Carolina for many years, so that was an issue that was raised.

The conclusion I know I reached, and it was a conclusion of a lot of the State people that we spoke with, is that in many cases if they are in areas which don't constantly go through that exercise, there are emergency plans there but they aren't much more than a plan that someone once looked at and put together; that what was missing was that element of trying to make sure that all of the individuals—the police, the medical, and so forth—would cooperate, would know how to cooperate. That's why part of the emergency planning rule was a requirement for an exercise.

We got no complaints from any of the emergency people that we spoke with, and we spoke with a lot of people from the various States and locales, that this was irrelevant. In fact, in most cases we got the reaction that this was something that they thought would be good and they saw this mechanism as a way of getting some funding to do things that as emergency personnel they would have liked to have done—the coordination, planning, cross-county, for example, cross-locale.

So yes, there are existing plans; yes, locales do go through evacuations; but from the NRC's view at the time, we didn't have enough

assurance that those would work in the time frames that we were talking about.

Senator BREAUX. Somebody had said, I think it might have been yourself, Mr. Ahearne, about FEMA's role. Was it you who said that you thought FEMA had to sign off on the plan?

Mr. AHEARNE. I said that the way that we envisioned it was that FEMA would be—rather than the NRC being the people with the expert knowledge on offsite planning, on whether an offsite plan was adequate—we brought FEMA in because our belief was that that was the Federal agency which had people and were familiar with examining whether emergency plans would work, and had the people who were used to examining tests and exercises.

Senator BREAUX. FEMA said that they didn't. They could make a recommendation, but that the NRC had the final call on it and would have the right to disagree regardless of what they said.

Mr. AHEARNE. Yes. As I recall, the way that the Atomic Energy Act is written, the NRC is the issuer of the license. If the NRC establishes as a requirement that a certain element, part of a regulation, must be met, it's the NRC that has to have the final judgment. But the way the rule is written, it was clear that the acceptability or nonacceptability of offsite emergency planning, the NRC was going to use FEMA's position.

Senator BREAUX. But you agree that they could overrule FEMA either way?

Mr. AHEARNE. Yes.

Senator BREAUX. Gentlemen, we thank you for being here. I think your testimony and your recall of the history of this problem has been very helpful and we thank you for it.

Mr. AHEARNE. Thank you, Mr. Breaux, and I wish you well with that suggestion you made.

Senator BREAUX. Thank you.

We have a roll call vote in process. We will recess the committee, and I will go vote. I will return for our next panel shortly.

[Recess.]

Senator BREAUX. The subcommittee will please come to order. We will resume our hearings. We are very pleased and honored to take testimony from Congressman George Hochbrueckner from the State of New York. We are pleased to receive your testimony and have you before the committee this afternoon.

STATEMENT OF HON. GEORGE J. HOCHBRUECKNER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. HOCHBRUECKNER. I thank you very much, Senator.

First off, I thank you for the opportunity to allow me to be here in order to share with you my views relating to the emergency evacuation planning. And certainly, as the new Congressman from the eastern end of Suffolk County, the home of the Shoreham nuclear power plant, I am pleased to be here representing over 500,000 constituents, 80 percent of whom happen to oppose the Shoreham plant.

I come from a background of engineering where I've spent 25 years involved in aerospace engineering, and consequently I think, coming from a technical background, I'm in a position where I can

discuss some of the technical aspects of the plant, and I'm prepared to do that.

Certainly, the nuclear plant at Shoreham is the number one issue in my district. In fact, it's the reason that I'm here. The fact of the matter is that we on Long Island do not need Shoreham. We clearly do not need its potential for nuclear disaster, and certainly the Chernobyl plant accident provided very clear evidence and certainly has further awakened people to the potentials for nuclear disasters.

We also don't need Shoreham because of its cost. If that plant is activated, having spent 10 years in the New York State Assembly as a member of the Corporations Authority and Commissions Committee, it is very clear to me that if that plant is energized, we will see a doubling of the cost of electricity on Long Island, which will clearly give us the dubious distinction of having the highest rates in this Nation. And certainly, as a Representative, that is not acceptable.

And thirdly, we don't need the Shoreham plant because we do not need the power. Certainly, when we get into the 1990's—we have a new transmission line that's being built to upstate which will provide to us an abundant source of reasonably-priced power from Canada as well as upstate New York, and certainly on Long Island we will be building garbage plants so that we don't have Islip barges floating around anymore, and those plants will, in fact, produce electricity to meet the growing energy needs on Long Island. And certainly, we don't need the power because over the next several years—I've already made proposals that the Long Island Lighting Company is already in the process of implementing which will see to meeting the peak summer power needs until the transmission line and the garbage-burning plants come on line. So we do not need Shoreham—certainly, as I say, because of its potential for nuclear disaster, its cost, as well as the fact that we don't need the power.

I would also like to point out that this is not a partisan issue. Very clearly, both Democrats and Republicans alike oppose the opening of that plant. Certainly, the State of New York, which has two out of the three bodies which affect its government, happen to be Democratic. At the county level we have a County Executive who is a Republican, as well as a County Legislature which is dominated by the Republicans. Collectively, county and State government have concluded, after extensive work and studies, that you cannot evacuate the people of Long Island. One need only take a trip out to the east end, to my district, and one can easily see why the Long Island Expressway received its title of being the longest parking lot in the world. There is no way that an appropriate evacuation could occur on Long Island.

Of course, the reason for your hearing today is to talk about emergency planning. The NRC in 1980, after the Three Mile Island accident, made a very wise decision and promoted a rule which basically said that they would not provide any operating licenses for any nuclear powerplants that do not have a State- and locally-approved evacuation plan. It was a very good rule. It made a lot of sense, and certainly, it was based on the experience of Three Mile Island, and it was well received. That rule has been in place now

for seven years. At this point in time, as you know, the NRC is in the process of changing that rule. Of course, in spite of the lessons learned from Chernobyl and lessons yet to be learned from Chernobyl, we find this to be a very disturbing action that they are taking.

There is no doubt in my mind and in the minds of many other people on Long Island that the NRC effort to change this rule is, in fact, a plan to jam the Shoreham and the Seabrook power plants down our throats. We are very unhappy about that. In fact, I am shocked at the NRC's actions, considering they are violating a written pledge of President Reagan. In fact, what I would like to do is give to staff to distribute to you copies of the President's written commitment to the people of Long Island that he would not impose an evacuation plan over local and State objections. So if I could distribute these——

Senator BREAU. Without objection, we will make it a part of our record.

[The material referred to follows:]

To Congressman Bill Carney from the President and the Secretary of Energy — a commitment on Shoreham.

“... the Department of Energy
does not favor the imposition of
... an emergency evacuation
plan ...”



THE DEPARTMENT OF ENERGY
WASHINGTON, D. C. 20585

January 3, 1984

MEMORANDUM FOR THE SECRETARY
FROM: THE SECRETARY OF ENERGY
SUBJECT: SHOREHAM NUCLEAR POWER PLANT

1. On July 1, 1983, the Department of Energy received a letter from the President and the Secretary of Energy regarding the proposed emergency evacuation plan for the Shoreham Nuclear Power Plant. The letter stated that the Department of Energy does not favor the imposition of an emergency evacuation plan for the Shoreham Nuclear Power Plant. The letter also stated that the Department of Energy is currently reviewing the proposed plan and will issue a final decision by the end of the year.

2. The Department of Energy is currently reviewing the proposed plan and will issue a final decision by the end of the year. The Department of Energy is currently reviewing the proposed plan and will issue a final decision by the end of the year. The Department of Energy is currently reviewing the proposed plan and will issue a final decision by the end of the year.

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Respectfully,
The Secretary of Energy

William C. Verbruggen
January 3, 1984

THE WHITE HOUSE
WASHINGTON

October 12, 1984

Dear Bill:

I want you to know of my appreciation for your continuing contributions to and support for the Administration. Our leadership and commitment have been instrumental factors in the progress we have made in the last few years.

On a matter of particular concern to you and the Administration, I wish to express my appreciation for your leadership and support. The Federal Government does not favor the imposition of an emergency evacuation plan for the Shoreham Nuclear Power Plant. The Federal Government does not favor the imposition of an emergency evacuation plan for the Shoreham Nuclear Power Plant. The Federal Government does not favor the imposition of an emergency evacuation plan for the Shoreham Nuclear Power Plant.

Thank you again for your support. I look forward to working with you in the years ahead.

Sincerely,

Ronald Reagan

The Honorable William C. Verbruggen
House of Representatives
Washington, D.C. 20515

“Your concern for the safety of
the people of Long Island is
paramount and shared by the
Secretary and me.”

Mr. HOCHBRUECKNER. In fact, after you distribute that, let me call your attention to the specific—very specific—commitment that the President made. In fact, when you receive a copy, if you'll look at the letter on the right-hand side with the letterhead of the White House, October 11th, 1984, I call your attention to the second paragraph, the section that I have boxed off—which, by the way, is in context—it says, "This Administration does not favor the imposition of Federal Government authority over the objections of State and local governments in matters regarding the adequacy of an emergency evacuation plan for nuclear power plants such as Shoreham."

Very clearly, what the NRC is doing is changing their rule in violation of the President's written commitment. Now, I have never seen anything from the President, other than this commitment, saying that the President does not continue to support this commitment. So as far as the world is concerned, this is the President's official written statement relative to the imposition of evacuation plans over local objections.

I'm also very unhappy, by the way, to hear that the Department of Energy is not here to answer why they are violating the President's direct commitment. In fact, last week FEMA became before the House committee; Congressman Udall had a hearing at which I sat in, even though I am not a member of that particular committee, and I had the opportunity to question FEMA and to question the NRC, and to put the question to them, why are they violating this written commitment of their boss? So I am unhappy that the DOE isn't here today so that these questions can be posed to them. Why are they violating the President's commitment?

In fact, I've also brought with me a copy of a letter from the Secretary of Energy dated April 30th to Senator Simpson, and I'll be happy to provide copies of this letter also. Basically, I'll wait until you have it in hand, and I'll reference the paragraph that I'm mainly concerned about.

This is very surprising to me, because when one reads through the letter it is very clear that the Department of Energy is hell-bent on opening Shoreham. In fact, I call your attention to paragraph 3 where it states, "The Department"—meaning the Department of Energy—"supports the adoption of the proposed rule and views this proposal as an important step toward maintenance of nuclear power as an energy option for the Nation."

Very clearly the Department of Energy, in direct violation of the President's written commitment, is clearly moving ahead, doing everything possible that they can in order to encourage the opening of Shoreham. From my perspective, I find that to be an extremely shocking thing. Do we have another agency, like Colonel North, that is running amok in opposition to the stated activity and position and commitment of the President? It seems to me that is the case, and let me assure this subcommittee that whether you ask the questions of DOE or not, I will be asking the DOE to explain this dichotomy of why their boss tells them to do one thing, and yet they are clearly bent on doing the opposite.

I would also like to point out that presently I do have 10,000 signatures from people in my Congressional district which I will be shortly delivering to the White House, reminding the President of

this written commitment and asking him why his agencies are running amok. In the first place, the NRC shouldn't even be considering this rules change because, certainly, they are a quasi-judicial body. And when they are making decisions based on regulations already adopted, we should not be affecting them, and I understand and accept that principle. Neither, of course, should the President be affecting them. But when they are writing rules, very clearly they are supposed to be reflecting the direction and the commitments made by their President.

So I will continue to press the NRC as to why they are flying in the face of their boss' commitment as they write that regulation. Also, of course, why is FEMA and why is DOE and why is the Coast Guard—why are all of the various branches of the Federal Government which do answer directly to the President, who are in fact at this time doing everything possible to aid in the opening of Shoreham and Seabrook, why in fact they are doing that in violation of the written commitment of the President?

Now, if the President has changed his mind, let him tell us. But certainly, there is nothing written anywhere that says that the President has changed his mind. This is his only statement of position relative to evacuation plans, and I remind you again, the words say "This Administration does not favor the imposition of Federal Government authority over the objections of State and local governments in matters regarding the adequacy of an emergency evacuation plan for nuclear power plants such as Shoreham." He couldn't be more clear than what he said in 1984, and we certainly intend to hold the President's feet to the fire in any way we possibly can to get him to keep this commitment.

So I do hope that when this subcommittee and committee decides as to what we should be doing legislatively in order to assure that the people of this Nation are protected from improper licensing, licensing that will produce unsafe situations, that you take this commitment into account.

Also, I would like to point out that Senator Moynihan has a bill, S. 40, which essentially says that you cannot have an evacuation plan approved unless you have FEMA rendering a finding. And certainly it's not the strongest bill in the world, but it is a bill that we think is important, and I would hope that this committee would approve that bill.

And I am pleased to say that S. 40 and its equivalent in the House, H.R. 2279, has been submitted under my name with the support of Congressmen Downey and Mrazek, so that all three Congressmen representing Suffolk County, 1.3 million people, the unfortunate home of the Shoreham nuclear power plant, are in support of that legislation and we will be promoting it.

So I thank you very much for your time and for your sensitivity and attention, and I'd be happy to answer any questions you may have.

Senator BREAU. Thank you very much, Congressman. We appreciate your taking the time to be with us and your involvement in this. You certainly, I think, are representing the people that elected you and are doing it to the best of your ability, and we appreciate your being here.

I remember you questioning the letter from the President written a couple of weeks before the election, back in 1984. That brings to mind the story that Governor Earl Long, when he was Governor of Louisiana back in the 1950's, when the election was over and the group of supporters that he had promised one thing or another to came to the capitol to collect on his promise, and he couldn't comply. And his staff said, well, Governor, what are we going to tell them? He just looked at them and said, tell them I lied.

I don't know if that analogy is applicable to the situation today when you cite the letters written back in 1984 or not. Perhaps they can find a way to differentiate what they said in this letter from their position today. We do not have a position from the Department of Energy other than the letter from Secretary Herrington which, supports the proposed rulemaking. And, as you point out, NRC is not legislatively required to answer to the President. The President merely appoints them and they make their own independent decisions, and that's their decision at this point.

I guess the only question I would have is, New York has a number of licensed nuclear powerplants that are closer to New York City, for instance, than this one, that are older and, one could argue, probably not as safe as the Shoreham facility is because it's more modern and newer, that are located in areas with much higher density population. And yet the State, in those cases, has approved emergency evacuation plans, and yet in this one they seem to be unwilling to participate in the process.

Can you differentiate for the committee why one and not the other?

Mr. HOCHBRUECKNER. Well, certainly, as you know, Governor Cuomo was in fact active in helping to establish the evacuation plan for the Indian Point plant which, as you rightly point out, is fairly close to New York City. But that even further emphasizes the point that we have. The fact is that the Governor participated actively in assuring an evacuation plan was adopted for an older plant which had, in fact, been on line, and has chosen to oppose the Shoreham nuclear power plant. And I think the difference is—while I cannot speak for the Governor directly—it's very clear that his position is based on the fact that he is absolutely convinced, after the \$700,000 study that was done by the Suffolk County Government in a bipartisan way along with the studies that were done at the State level, along with the numerous court battles that were fought, that the Governor recognizes that evacuation from the Shoreham area is an impossibility. In fact, I'd like to cite for you, for example, the fact that in July of last year we had a mayonnaise truck on a clear day in July have an accident on the Long Island Expressway, and this was a non-panic situation. Just an afternoon accident, a mayonnaise truck driving along on the Long Island Expressway had an accident. The net result is that there was an eight-mile backup and for five hours people did not move. And that was in a non-panic situation.

So I think—you know, even members of the President's Administration who are from Long Island have admitted that there is no evacuating Long Island, and consequently we are talking apples and oranges when one talks about Indian Point versus talking about Shoreham. And certainly, we recognize—coming from an en-

gineering background, I recognize that there are over 100 operating nuclear plants in the United States. They do put out power. They have been built at reasonable cost. In every case, I'm sure, they must be safe because they are licensed and working and what have you.

The fact of the matter is, though, that we are now talking about a new day. We are talking about a concern that has grown with Chernobyl, and certainly our intention is not to shut down 100 nuclear plants in the United States. They are operating; they are putting out power, and that's fine. But the fact of the matter is that with the Shoreham nuclear powerplant, we do have a unique circumstance, as the Seabrook people do. And all we are trying to say is that it is the State and local government which has the responsibility for protecting the safety and health of the people in that area, and consequently they are the ones who must accept the responsibility if there's an accident and must take care of the people, not the NRC, located 300 miles away.

And so our concern is that the State and local government do have a real voice in the evacuation plan approval cycle and, therefore, in the licensing of the plant. And what we see in this NRC rules change is, in fact, a violation of their own rule that has stood for seven years. It was well-founded when they approved it; it made a lot of sense, and we find it shocking that they would at this point in time be throwing out a very good rule that has existed for seven years, especially in light of the Chernobyl problem.

And so that's our concern, that they are doing this. And it's very clear to us, regardless of what they might say or how they might couch their terms, that their goal is to render an operating license for the Shoreham and Seabrook plants, and they're going to do it with or without State participation. But the fact of the matter is that State and county government should have a say. They are responsible for the safety and health of the people, and consequently, we are shocked and very disturbed that, in fact, they would be cut out of the loop. They belong in that loop. State and local governments should, in fact, have a voice in the licensing of future plants. And that's all we're asking for here, to keep what we've had for seven years, because it made sense when they adopted it in 1980 and it makes sense to keep it in 1987.

Senator BREAU. Well, Congressman, we appreciate your taking the time and the effort to come over to this side of the Capitol and to be with us and present your remarks. We may have some additional questions that we'd like to send to you for you to consider. We appreciate your being here.

Mr. HOCHBRUECKNER. Thank you.

Senator BREAU. I'd like to welcome the next panel, which will consist of some local representatives, Mr. William Lord, Vice Chairman, Board of Selectmen from Amesbury, Massachusetts; Mr. Ronald Jordan, Chairman of the Board of Selectmen of Merrimac, Massachusetts; Mr. Wayne Prospect, Chairman of the Suffolk County Legislature Energy Committee, and Mr. Paul McEachern, Counsel for the Town of Hampton, New Hampshire, and anyone else that you have that you would want to introduce.

We are pleased to have you here and we are glad to receive your testimony.

Mr. Lord, we have you down first. If you'd like to go ahead, we'd be pleased to receive your testimony.

**STATEMENT OF WILLIAM LORD, VICE CHAIRMAN, BOARD OF
SELECTMEN, AMESBURY, MA**

Mr. LORD. Thank you, Mr. Chairman.

My name is William Lord, Vice Chairman of the Board of Selectmen from the Town of Amesbury, Massachusetts. I'm also the Chairman of Amesbury's Radiological Emergency Response Plan Committee and, although I am not an attorney, I do represent the town as an intervenor before the Atomic Safety and Licensing Board.

The Town of Amesbury is centered, as you saw on the map with Senator Kennedy this morning, just five miles southwest of Seabrook Station.

On November 18, 1985, following an affirmative town meeting vote, the Board of Selectmen unanimously established the town's policy of nonparticipation in radiological emergency planning for Seabrook Station. It is on that basis that I am here today to voice our opposition to the NRC rulemaking issue.

Throughout the text of the rulemaking proposal, three significant issues stand out. First is the concept that nonparticipation by State and local government is contrary to the expectations of the Commission and of Congress, when the present rules were promulgated in the wake of the Three Mile Island accident.

Second, we find repeated references to governmental noncooperation having an adverse financial impact on substantially-completed reactors.

Third is the preposterous notion that government policies of non-cooperation would be reversed upon licensure under this rule change. That notion is often referred to as the "realism theory."

Since both Senator Moynihan and Senator Simpson did take an active part in development of the present rules, it would be redundant to cite the specifics of the Senate record on the question of Congressional intent. The Congress never sought to remove inherent States' rights for the purpose of licensing nuclear power plants. Furthermore, in responding to industry complaints during regulatory development, the NRC itself took a very similar stand:

The Commission recognizes there is a possibility that the operation of some reactors may be affected by this rule through inaction of State and local governments or an inability to comply with these rules. The Commission believes that the potential restriction of plant operation by State and local officials is not significantly different in kind or effect from the means already available under existing law to prohibit reactor operation, such as zoning and land use laws, certification of public convenience and necessity, State financial and rate considerations, and Federal environmental laws. And that's direct from 45 FR 55404.

The concept as proffered by the NRC staff in an attempt to substantiate this rule is totally unfounded. The issue of adverse financial effects is equally unfounded in ruling on the adequacy of emergency plans. Again, the NRC is seeking to reverse its position that financial interests of the utility will not "influence its consideration of whether to grant the operating license"—that's from Seacoast Anti-Pollution League versus the NRC, D.C. Circuit Court, 1982.

The issue of primary importance, though, to the Town of Amesbury is this "realism theory." The Town of Amesbury, our neighboring communities and the Commonwealth of Massachusetts have made a very good faith effort in dealing with the Seabrook emergency planning issue. We would be less than honest with our citizens if we allowed this process to continue, and we would be less than honest with ourselves as elected officials if we allowed unworkable and unacceptable plans to be foisted on the region.

Our conclusions are based on months of local study, employment of expert consultants, and myriad public hearings. Why, then, should the Town of Amesbury be labeled "uncooperative" if it honestly cannot provide for the health and safety of its residents during an accident at Seabrook?

The reality of it is, who will know better what to do with emergency State planning? Who will be better able to determine which agency of the State government can perform? Who more than the Governor and the elected officials of that State, the legislature of that State?

Those are the words of Senator Alan Simpson, spoken in rebuttal to the idea that the NRC should be allowed to put evacuation plans in place over a State objection. Those words were never more important than they are today.

If the NRC adopts this proposal they will rule on the adequacy of plans in part by "taking into account likely State or local response to an actual emergency." To quote Senator Edward M. Kennedy, "involuntary participation under the barrel of a gun is not meaningful cooperation." And to greater emphasize his point, I have attached to the pre-filed testimony two sworn affidavits, and there will be many more to follow, that affirm our refusal to participate in the NRC's and the utility's charade.

The Town of Amesbury stands by its policy of nonparticipation. We urge the members of this committee and the entire Congress to support pending legislation that will once and for all prohibit such regulatory manipulation.

Thank you.

Senator BREAU. Thank you very much, Mr. Lord.

Mr. Jordan?

STATEMENT OF RONALD R. JORDAN, CHAIRMAN, BOARD OF SELECTMEN, TOWN OF MERRIMAC, MA

Mr. JORDAN. Mr. Chairman, members of the committee and staff, my name is Ronald R. Jordan. I'm an attorney and Chairman of the Board of Selectmen of the Town of Merrimac.

The Town of Merrimac in May, 1986 at its annual town meeting—and just recently, two days ago—overwhelmingly rejected the Seabrook Emergency Response Plan as was submitted. We refuse to participate in any test of the plan or in any drill.

I am here today to testify in opposition to this proposed rule change, which would effectively eliminate the right of a State to have a voice in the licensing of a power plant once that State reaches the conclusion that evacuation planning is untenable and declines to participate in this process.

This rule is directed at two plants, Shoreham and Seabrook. This proposal is nothing less than an attempt to circumvent good faith

opposition by local communities and the State. Both have made good faith conscious decisions to not participate in evacuation planning. To change an existing rule merely to facilitate the licensure of a power plant is to render the entire process a fraud.

Above all, it is inappropriate to change the process. Our communities and State have played by all the rules and played the game fairly and have reached the conclusion in good faith. The conclusion is that there is no evacuation plan that can ever be devised that can safely evacuate the residents of our communities. It is unconscionable now to propose that the rules be changed merely because the wrong team won. We have relied and adhered to the process. We have participated in the procedure. Our decisions and conclusions are reached in good faith.

The implication is that if this rule change is adopted, then a utility may submit its own set of plans to bypass a State's good faith opposition or lack of participation. No procedure should ever be adopted which would allow a utility to circumvent a State's good faith opposition to the licensing of a power plant. This rule presupposes that there is a validity in the so-called "realism theory." This theory purports to say that local officials and residents when confronted with a real emergency will band together to assist in an evacuation. This is a fiction. Most people we have talked with about their reaction to a real emergency at Seabrook talk of finding their families and of fleeing the area.

Our appointed review committee, whose job was to assess the evacuation plan, found the plan defective and fatally flawed. This committee, our own town meetings, the local governments of five other communities, and the Governor of the Commonwealth of Massachusetts, Michael Dukakis, all have reached the same conclusion: that is, that there is no evacuation plan to protect and safely evacuate the residents of our communities. Studies have shown that a radioactive plume could be in our area within a 30- to 60-minute period, and yet testimony today suggests that it would take between five to nine hours to safely evacuate our residents. That is unacceptable under any circumstances.

Seabrook is unique. It is sited in a New Hampshire seacoast region, only one mile from the Massachusetts shoreline. The road system is crowded and inadequate. A heavy summer beach population, coupled with the intense coastal weather patterns that we experienced this year and many other years, would render the evacuation planning process moot and an exercise in futility.

On behalf of the Town of Merrimac, our neighboring towns and the Commonwealth of Massachusetts, I urge you to oppose this rule change. Moreover, I urge you to question the practices and policies of the Nuclear Regulatory Commission, whose sole ambition seems to be to facilitate the licensure of nuclear power plants rather than to protect the health, safety and welfare of the citizens of the Commonwealth and of the United States.

The allegations of coaching and guidance given to owners of utilities, specifically in the Seabrook case, raise substantial doubt as to the integrity of the NRC. They have done more than create the appearance of impropriety.

Thank you very much for the chance to talk with you.

Senator BREAUX. Thank you, Mr. Jordan.

Mr. McEachern?

STATEMENT OF PAUL McEACHERN, COUNSEL, TOWN OF
HAMPTON, NH

Mr. McEACHERN. Thank you, Mr. Chairman, for the opportunity to come before you. My name is Paul McEachern, and I am Counsel to the Town of Hampton, New Hampshire, which is a small town adjacent to the Seabrook nuclear power station.

In the summer months, Hampton Beach is a popular vacation destination for both Canadian and New England residents. Since 1975, the town fathers of Hampton have expressed concerns that the beach area could not be adequately evacuated in the event of an emergency at Seabrook. Throughout, they have been told that the State and the NRC authorities would cooperate with Hampton in establishing emergency procedures, but in December, 1985, the State of New Hampshire, without prior consultation or notice to the Town of Hampton, submitted an offsite emergency evacuation plan for Hampton to the Federal Emergency Management Agency. Since then, the town has refused to participate in the emergency planning process because of the failure of the State of New Hampshire, the applicant, or the NRC to permit Hampton any meaningful input into its own radiological emergency response plan, and because of the belief commonly held by the citizens of Hampton that Hampton Beach cannot be evacuated. This circumstance is due largely to the poor road network which serves the beach. It is not uncommon to experience, as Senator Kennedy pointed out this morning, delays of several hours in attempting to travel from the beach to the town on any normal summer weekend. There are no significant sheltering facilities to serve the residents of Hampton Beach. There are not adequate transportation facilities for the evacuating of school children, the beach population, or the disabled. In short, there is no public confidence that an evacuation can be carried out.

Now we are told that, because of our opposition to the plan and because others—most notably, the Governor of Massachusetts, have reached the same conclusion—the NRC is entertaining a rule change to eliminate the need for State and local cooperation. The proposed rule limiting the voice of local governments for their own safety concerns is a regrettable deformity of the Federal-State relationships.

Safety comes last. The plant is sited, constructed, loaded with fuel, and then the NRC decides if "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency." Absurd. No local government would ever issue a permit to build a house, tell the builder he is at his own risk, and then after the house is built, decide the zoning questions. The NRC is doing just this in the case of nuclear powerplants.

Obviously, pressures build to adjust the safety concerns when it is apparent that the plant may not open if they are addressed. The staff's language to the rule change points out the dilemma, and I won't read you the quote because it has been read into the record before. Yet, the utility has always been aware that a construction permit does not entitle it to an operating license. Now we are told

that "minimal impact" on safety would come about by the rule change.

In effect, the NRC is considering a "law of the jungle" rule that every man will run for it. As indicated, the Town of Hampton cooperated with all higher governmental authorities until December, 1985, when an unworkable evacuation plan was submitted without its prior knowledge. In March, 1986, the town, through its legislative body, which is the town meeting, voted to end its cooperation. Since then—and I might add that this act of the town was not a whim. It wasn't an act of defiance. It was an act of sadness and frustration that they had been abandoned by the government that they had come to rely on. Since then, the exigencies of the situation have taken hold. The inescapable fact of Seabrook is that it is improperly sited. Safe evacuation is an impossibility. It is unfortunate that the NRC has placed safety as the last consideration before licensure. Safety last, indeed.

The NRC has no traffic policemen or school teachers to carry out an evacuation. Before the Nuclear Regulatory Commission compromises the safety of the citizens near Seabrook, it should reexamine its method of licensure which allows a plant to be sited next to a popular beach resort with limited access roads. There's the rub. It will not be glossed over by a corruption of the Federal-State relationship.

Before placing too much emphasis on the size of the applicant's investment, the NRC should realize that for these many years, investors have been paid handsomely for their risks. In fact, lawyers have made careers out of these licensing procedures. Now they should be made to face the other aspect of risk, that the plant will not be licensed. After Chernobyl, we cannot continue down the nuclear road without a decent pause to examine the safety concerns of people who are sentenced by their Government to become neighbors of nuclear plants. Before we ask that of our citizens, it's not unfair to ask that those plants that were improperly sited never operate. To do otherwise would be to ask us to suspend our knowledge and believe that there will be no accident requiring evacuation.

And might I just add that I agree with former Commissioner Ahearne, that this rule change is based on the premise that there won't be an accident. It's the only way that I can ascribe good faith to the people who have developed an evacuation plan for Hampton Beach, because if you came there you would see for yourself that you couldn't possibly evacuate that. And the other premise is that in an emergency, everybody is going to run for it. These are not building blocks upon which to build a socially-responsible government.

Thank you, Mr. Chairman.

Senator BREAU. Thank you, Mr. McEachern.

Mr. Prospect?

STATEMENT OF WAYNE PROSPECT, CHAIRMAN, SUFFOLK COUNTY LEGISLATURE ENERGY COMMITTEE, ACCOMPANIED BY HERBERT H. BROWN, KIRKPATRICK & LOCKHART

Mr. PROSPECT. Mr. Chairman, Senator Moynihan, my name is Wayne Prospect. I am a Suffolk County Legislator from Long Island, New York, on behalf of my colleagues in the Suffolk County Legislature I appreciate the committee inviting me this afternoon. I am joined today by counsel, Mr. Herbert Brown of the Washington law firm of Kirkpatrick & Lockhart. Mr. Brown represents the County of Suffolk on all Shoreham-related matters.

We do have a volume of official county testimony that I would like to submit to the record with the permission of the Chair, but I have a summary only that I would read into the record.

[The material referred to has been retained in committee files.]

Senator BREAUX. Without objection.

Mr. PROSPECT. Okay, thank you.

Suffolk County commends the subcommittee for holding this hearing on the important subject of emergency planning. Suffolk County has been deeply involved in all aspects of emergency planning because the Shoreham nuclear power plant is located within the county.

Suffolk County is opposed to the operation of Shoreham. We are supported by 80 percent—1.3 million people of Suffolk County—of the public and by the State of New York. For us Shoreham is a case and not a cause. Our goal is public safety; not politics, not anti-nuclearism, and not dogma of any sort. With Brookhaven National Laboratory in the county, we have lived with the atom for decades and have no axe to grind.

Emergency preparedness is especially important on Long Island because there are only three roads on which hundreds of thousands of people would have to try to evacuate westwardly in case of an accident at Shoreham. In fact, scientific surveys show that far more than one million people would seek to evacuate to safety; that is, people who live beyond, as well as within, 10 miles of Shoreham. These surveys corroborate the Three Mile Island experience, where 2,500 people were advised to evacuate but 144,000 actually did. A large-scale evacuation would mean gridlock on Long Island's limited roads, what the Suffolk County Police Commissioner called an "immobilized evacuation." Indeed, people would be forced to absorb the very radiation from which they sought to escape.

As a result, Suffolk County has taken the emergency preparedness issue very seriously, and has participated exhaustively in emergency planning. We have learned from Three Mile Island, and were reminded by Chernobyl, that it was a mistake for a nuclear power plant to be built on Long Island. The need now is to correct the mistake by keeping Shoreham closed, not to compound it by operating the plant.

The continuing fight over Shoreham cannot be rationally explained. It is simply an act of blind zealousness by LILCO, Shoreham's owner, to get its way. Indeed, Shoreham is unwanted; 80 percent of the public and all affected State and local governments oppose the plant. Shoreham is unsafe; safe evacuation from a Shoreham accident would be impossible. Shoreham is unneeded; the

electric power capacity of Shoreham is unneeded until the mid-1990's, and other generating alternatives can then provide the capacity. Therefore, in any rational environment, Shoreham would have long ago been abandoned by LILCO. The ensuing economic issues would have been worked out within the institutions of New York State, as the county proposed as early as 1983.

The Shoreham battle rages also because the NRC is unwilling to be an impartial adjudicator and to rule, as the law requires, that Shoreham cannot operate. Instead, the NRC is LILCO's alter ego, playing the role of LILCO's advocate, bending the rules to LILCO's advantage, and shaping the facts to fit LILCO's case. To this day, the NRC refuses to accept the fact that significant numbers of people beyond 10 miles of Shoreham would evacuate. At LILCO's urging, the Commission repeatedly embraces such fictions to rationalize LILCO's position.

The NRC's most recent act of advocacy for LILCO is it proposed change in emergency planning rules. In essence, the NRC's proposal is a gambit to try to defeat Suffolk County's opposition to Shoreham. The NRC claims no safety reason for the rule, only that it is a change in policy. What really is this change?

First, it is a change away from public safety. The proposed rule requires less State and local government emergency preparedness in 1987 than was required in 1979 before the Three Mile Island accident.

Second, it is a change toward NRC arrogance—an intrusion upon the police powers of Suffolk County and New York State. The rule claims for the NRC the power to presume what sovereign States and counties would do in an emergency. These decisions are for the State and local governments alone; the NRC's presumptions are groundless fictions.

The NRC bases its proposal on "equity and fairness," that is to say, on the NRC's presumed economic judgment. But there is no economic analysis accompanying the proposed rule, no assessment of the economic aspects of the Shoreham situation, no quantification of safety costs versus economic costs. There is not even a simple articulation of what the Commission views to be the range of relevant equities. Indeed, to any reasonable person, the NRC's proposed rule change is just something the Commission contrived to help LILCO try to license Shoreham.

In fact, Shoreham provides no reason for the NRC to change the rules. The Shoreham case reflects truly how the Federal system is supposed to work. Suffolk County has exercised its police powers lawfully. The courts have so ruled, and the NRC should accept this fact. In 1980, when the emergency planning were issued, the NRC was more forthright. It recognized that State and local governments have the "primary responsibility" to protect their public.

In briefest form, here are the facts about Shoreham.

Construction of Shoreham began years before the Three Mile Island accident. As early as 1970, before Shoreham was built, citizen groups tried to persuade the AEC and LILCO to consider emergency planning. LILCO resisted these efforts, and the AEC ruled that emergency planning could not be considered until after L was built—that is, "at the operating license stage."

In 1977, when LILCO applied for an operating license, Suffolk County intervened and raised the emergency planning issue. The issue was pending when Three Mile Island occurred.

The 1979 Three Mile Island accident dramatically raised Federal, State and local governments' consciousness about emergency preparedness. In 1980, Congress and the NRC responded to Three Mile Island by making emergency preparedness a condition of licensing a nuclear plant. The NRC implored State and local governments to upgrade their emergency preparedness.

In late 1981, Suffolk County determined that its own emergency planning efforts were inadequate. The efforts failed to confront the practical problems involved in emergency response and did not take account of the lessons of Three Mile Island, including the implications of vast numbers of people evacuating on Long Island's limited roads.

In March 1982, Suffolk County upgraded its emergency planning efforts. The county retained a team of nationally-known experts to study emergency planning issues and prepare a draft emergency plan for Shoreham. Their work took eight months, cost \$600,000, and was the subject of eight days of public hearings.

After receiving the draft plan, holding hearings, studying the issues, and even meeting with local government officials in the vicinity of Three Mile Island, Suffolk County found that it would not be possible to evacuate or otherwise protect the public in the event of a nuclear accident at Shoreham. In an accident, gridlock on the limited roads would prevent people from being able to evacuate.

Therefore, in July 1983, the county resolved not to adopt or implement an emergency plan. Adopting one would have misled the public into believing they were protected when, in fact, they were not.

A blue ribbon commission established by Governor Cuomo examined Suffolk County's actions and concluded that the county acted reasonably and responsibly.

Against LILCO's challenges, Suffolk County's actions in not adopting a plan were upheld by two Federal courts. The courts found that Suffolk County acted lawfully and rationally. New York's highest court also upheld the county's actions.

In 1983, LILCO wrote its own emergency plan for Shoreham. The provisions of the plan exude fantasy. For example, meter readers being paraded as stand-ins for professional law enforcement officials; school districts, which formally stated that they cannot protect their students and which have no nuclear emergency plans, being touted as fully prepared for a Shoreham accident; and for the hundreds of thousands of evacuees forced to abandon their homes, LILCO has 80 portable showers and no portable toilets, and has paper slippers and overalls for people whose clothes are contaminated. Long Island in winter is a cold place for paper clothes.

In February 1985, the New York State Supreme Court and later the Appellate Division ruled LILCO's plan illegal and not implementable. The courts found that LILCO's plan usurped the State's police powers.

Because of these court decisions, the NRC cannot license Shoreham. The reason is that licensing a plant requires an implementa-

ble State, local, or utility emergency plan. At Shoreham, there is none.

The NRC, acting as LILCO's advocate, is now trying to evade these court decisions by changing the rules. In effect, the NRC is hoping to eliminate the requirement for emergency preparedness in a case where preparedness is impossible. The NRC's illogic is that if the public cannot be protected, then the plant should be permitted to operate anyway.

In 1980, when the lessons of Three Mile Island were still fresh, neither Congress nor the NRC would have tolerated a nuclear power plant being licensed, one, where the affected county and State governments thoroughly participated in emergency planning; two, where they determined in good faith that the public could not be adequately protected, and three, where they won approval of their determinations in both Federal and State courts, as is the case today with Shoreham. Only historical revisionists could claim otherwise.

Indeed, in June 1980, the Nuclear Regulatory Commission's own staff went so far as to write in a memorandum to the Commission, "The staff recognizes this potential for a third party *de facto* veto power." And the Commission responded back by saying, "We are aware of this." Thus the staff concluded, "The decision of how the public should be protected has been made, that is, either emergency planning and preparedness is adequate or a plant must be placed in a condition of safe shutdown. The State and local authorities have the responsibility to determine which option is in the best interest of their citizens."

Lastly, in 1979 the Presidential Kemeny Commission concluded that to protect the public, there must be a change in attitude at the NRC. The NRC's proposed rule change shows that there has indeed been a change in attitude, but the change seems to be for the worse.

Mr. Chairman, I thank you for giving me the opportunity to make that statement and, for the record, I would just like to correct the first quote of the NRC staff. The full quote was, "The NRC staff recognizes this potential for a third party *de facto* veto. The Commission is also aware of that."

Thank you.

Senator Breaux. Thank you very much, Mr. Prospect, and I want to assure you particularly of the untiring efforts of Senator Moynihan in representing some of the concerns that you addressed in your statement on behalf of Suffolk County.

I'll let the Senator ask questions first.

Senator MOYNIHAN. Thank you, Mr. Chairman. That's very generous of you.

I'd like to thank Mr. Jordan, Mr. Lord, and Mr. McEachern for their very eloquent statements, and you'll forgive me if I just make a quick remark to Mr. Prospect.

Perhaps to give to you, Mr. Chairman, a sense of what New York has been through, we're as old as Louisiana. We're an old and established area. We have, as you have, town meetings. We have county legislators. We have town boards. We have State government. And Suffolk County is a quiet part of our State; growing but quiet. I think it would be properly described as politically conserva-

tive, and not much given to riotous behavior or thought. And what is so impressive, and you have to be impressed, as the Selectmen of Massachusetts and the town meetings in New Hampshire, the citizenry are aroused. The due process which has been in place for three centuries in those areas seems somehow not to prevail against this thing.

Mr. Prospect's statement about atomic matters—the Brookhaven National Laboratory has been right there in the middle of the county for 40 years with nuclear reactors the size of most installations. They've never bothered anybody; they're very careful and scientific.

The first thing we learned about LILCO is that it was a management with very little understanding of what it was doing in nuclear matters, none whatever. That has since changed, but their attitudes toward this—the Kemeny Commission, after all, not a commission that had any bias against nuclear matters; Mr. Kemeny worked on the Manhattan Project. I think I mentioned the other day, I don't think he has a college degree. He was one of those young fellows whose mathematics was such that he didn't need a college degree, and they needed him out at Los Alamos, that sort of thing.

But the attitude of LILCO, I'd just like to put this question to Mr. Prospect. It was 1983, and they had complete access to our offices down here; there was no Senator or Representative that hadn't listened to them. They turned up suddenly without telling anybody, and they engaged Mr. Nofziger and paid him some \$780,000 for political consulting.

Mr. Prospect, what would be the political consulting required? Or Mr. Brown, your counsel there? What are the political issues involved here, if this is a regulatory commission?

Mr. PROSPECT. That's what we would like to know, as well. We were aware of Mr. Nofziger's role, and we were very concerned as to why, indeed, LILCO hired him. We think that's an appropriate—I may suggest that you indulge me—I think that's a very appropriate role for a Senate committee to inquire into.

Senator MOYNIHAN. Well, we will, because—if I can say, Mr. Chairman, the response to an orderly process of established government by this utility has not been one to give you any confidence that they are playing by the rules. And by God, we're not going to allow that, not while I'm in the Senate.

Thank you, Mr. Prospect, and thank you, gentlemen. It seems to me we're hearing people who are representatives of American democratic systems say, no. And when they say no, they are heard.

Thank you, sir.

Senator BREAU. We wish you well on the trade markup.

Let me just ask Mr. McEachern, suppose a State's Governor, the State's Public Utility Commission, various people in charge of siting decisions in a State all say yes to a particular nuclear plant. On the other hand, you have various local communities that would say no. Is it necessary that we have a unanimous consensus of every governing body in the State to proceed? Or, in fact, to not proceed in a particular case?

Mr. McEACHERN. The obvious answer is, of course, no. Democracy is not precise, as someone said; it's the best we have. But in New

Hampshire, this process is still developing. It's not a fait accompli from any standpoint. Most citizens in New Hampshire by all polls oppose the location of Seabrook. All of the towns adjacent to it oppose it. We happen to have a very pro-nuclear Governor who used to be a consultant to Westinghouse who has, as spoken by the president of United Illuminating, been very forceful in his advocacy of this plant.

But we have not yet had the offsite hearings. There is a long way to go for Seabrook. There has been no demonstration that any plan that the State has submitted is workable in a very elementary way, so that—I abide by the process. I am part of it and I believe in it, and this is part of the process, the input that we have to you. And as someone said, it's hardly a black and white question. There are a lot of issues involved, and the issue of public safety is fundamental and the relationship between Federal and State is fundamental.

Senator BREAU. I appreciate that, but tell me in your opinion, what is wrong with the process that the Federal Government has established when it declared that nuclear power was in the national interests, and that State and local governments should participate in developing an emergency evacuation plan, but when their participation is complete, when their recommendations are made, that you're going to have to have someone on the Federal level to look at that and to make a determination as to whether it provides for reasonable assurances of public health and safety. And that is the NRC.

The protection of the local governing people and the local citizens is to go to court to say that that NRC decision is contrary to the law. That's the situation now. I mean, if the NRC takes a utility plan for Seabrook or for Shoreham and says, we believe this meets the standards that the Congress gave us; we're going to approve it, and you as an individual citizen or as head of a local community or as Governor of a State have the right to file suit, take it to court through the process to the United States Supreme Court, if you will, and see whether they followed the standards that have been set up.

Isn't that also part of the democratic process?

Mr. McEACHERN. It certainly is, and what you're saying is that there has to be some finality to it, and there will be. But might I also add that in this whole process, the Nuclear Regulatory Commission has not been an impartial arbiter. It has been an advocate in this process, and that's the flaw. That is the flaw. If we had, as a people, confidence in them—and when basic selectmen lose confidence in the government, you're losing something. We're not a bunch of rabble-rousers or anti-nukes or anything like that, but basic ordinary people have lost confidence in this process because of the advocacy of this commission, and that's been demonstrated time and time again. Just recently, representing the Town of Hampton, we got an appeal board of the NRC to reverse the licensing board on their schedule, which the appeal board said was a violation of due process. That's from the agency itself. It hasn't been fair.

Senator BREAU. Well, I can't argue with your point with regard to the public confidence, but with regard to the NRC, I think we've seen some of that this morning, with a Commissioner having to

take leave of his services as a Commissioner pending, in fact, a criminal investigation. And I can understand that feeling that you've expressed.

Let me ask something else. I know all of you represent your constituents; otherwise, you wouldn't be here. I mean, you're speaking on their behalf, and I appreciate that.

Assuming from your standpoint that the worst possible nightmare comes true, i.e., the NRC goes ahead and approves a utility emergency evacuation plan that the State and local governments in your communities and respective States do not participate in developing, and that that's challenged and the courts say yes, they have done it properly, we are going to issue an operating license. Would each of you recommend to your local governments that they, at that time, participate and work with the emergency plan that has been developed?

Mr. PROSPECT. What emergency plan has been developed? In Suffolk County there has been no emergency plan, written or—

Senator BREAU. No, I'm assuming for the sake of argument that we have—it's more of a hypothetical, that your worst fear occurs, that the NRC adopts a utility plan as being one that's reasonably safe and can provide assurances of safety. And that question is litigated; the final decision of the court, after all appeals have been exhausted, approves the actions of the NRC. The plant in Shoreham receives a license. The plant at Seabrook receives a license to operate. You are then faced with an operating nuclear plant in an area that you are concerned about.

My question at that point, then, is for you as a local official. What's your recommendation to your local governments? Do you continue not to participate in the emergency evacuation plan? Or do you at that time urge the local communities to participate in that plan for that plant which is now an operating plant? Anybody?

Mr. MCEACHERN. I'd be willing to answer. Every public official gives an oath to uphold the Constitution and to protect the health and safety of his bailiwick, and your question answers itself. But that doesn't mean that as part of that responsibility, that public official continues to assault the halls of Congress to get a decent change in the law in the name of basic decency; because in effect, if what you say would happen, the national Government is writing off the concerns of a significant minority of its population, and some people, of course, would move away. But those that do not would do the best they can, and continue to try to change the law.

Senator BREAU. I take it that you're saying yes, that you would continue to try and change the law and use every opportunity to do so, but that you would at the same time recommend they participate at that time in the development or workability of an emergency plan?

Mr. MCEACHERN. You'd do the best you could. I wouldn't say that you'd participate in a plan, that plan. There's no confidence in those plans, but you would take appropriate action.

Senator BREAU. Anyone else have a different comment or want to add to that? Mr. Jordan?

Mr. JORDAN. I think it's safe to say that two members of the three-member Board of Selectmen in the Town of Merrimac—if the

same plan is in place, and if that's ultimately approved by somebody, I think it's quite fair to say, and I personally know that I will not participate in an evacuation planning process. And that's based on a complete lack of confidence. In my view, we're doing a greater disservice to our community by accepting or using a plan that is fatally flawed. We can't rely on a plan which we have no confidence in, and we've reached that conclusion. Unless the facts can change substantially, we will not participate in a plan.

Senator BREAUX. Are you really saying that on behalf of the constituents you represent, assuming you then have an operating plant in your jurisdiction, that you would not try and participate to make sure that that plan is workable?

Mr. JORDAN. Yes, because I think the point is, we have no faith in the plan. We are only kidding ourselves if we think that that plan—we have studied it. We've put an awful lot of time and hours into that. If we're going to rely on that and we're going to try to implement that, we're doing a disservice to the public by thinking that that plan, which in my view is a fraud, is ever going to evacuate our residents safely.

Senator BREAUX. Would you as a local official direct your local firemen or local police officers not to participate in the evacuation if that unfortunate situation occurred?

Mr. JORDAN. Yes, I would.

Senator BREAUX. You would?

Mr. Lord, is that your opinion?

Mr. LORD. I would be one of five votes. My vote would be the same as Mr. Jordan's in that type of case.

We have before us now what the utility purports to be a utility plan. It's 67 pounds of paper that was rejected by the Commonwealth last year. In our opinion, it will not work. It's unacceptable. If the scenario carries forward over the next 18 to 24 months and the NRC in their wisdom approves that as the functioning plan, your question says to me, Bill Lord, will you turn to your town and say, now is the time to jump on board and see what we can do to this?

Senator BREAUX. No, that's not really that. I'm not asking about whether you would advocate support for the plant or support for anything that the plant stands for. I'm asking the question, assuming the plant ultimately is built with an operating license, that then there is in place an emergency evacuation plan. I guess my question is simply, would you cooperate or prevent your local officials, police and firemen, from participating in helping to make that plan work in the event that it's ever—unfortunately—needed to be put into effect?

Mr. LORD. We're dealing with a situation where it's far more than police and fire. The plans that are proposed for the Town of Amesbury call for approximately 1,000 people to respond in different levels. One might be for five minutes, and others might be for hours on end, but 1,000 people. Take from that 1,000 people the sworn public safety people in the community, and you've got about 940 left. What you are asking, would I advocate participation in what I perceive to be a dishonest plan, and ask civilians in the community to make a decision about giving up their rights to self-determination? Or to turn to those citizens and be honest with

them, you're on your own? As we've heard time and time again today, you're on your own.

My feeling is that the answer has to be that you cannot compromise your own honesty and your own morals, despite the fact that the plant was licensed and operating, and lie to your general public and say, here's a piece of paper; the town should now find some way to work with this, because it is, in our opinion, an unworkable—

Senator BREAUX. Assuming that the plant is built and operating and somebody unfortunately one day blows the whistle, evacuation, we've had an accident, I just find it so difficult to believe that as a public official you're going to instruct your policemen and firemen not to help evacuate people who need to be evacuated.

Mr. LORD. If you'll refer to the affidavit that I did submit, in my opinion I won't even be there. I, fortunately, live near the interstate highway; I could probably get there quicker than a few other people, but my intention is to not participate in the implementation of these plans that I know to be unworkable.

Senator BREAUX. Mr. Prospect, what's your opinion?

Mr. PROSPECT. Senator, a few observations.

First, there is a utility plan in Suffolk County called the LILCO plan. That plan has been declared null and void by the courts of the State of New York. Under no circumstances would Suffolk County ever work with LILCO to implement that plan. It's already been discredited in the courts and in the public's mind for all of the best reasons. Any attempt to have an emergency plan with LILCO personnel would never work because the mistrust for the utility is just at the bottom. I could not overstate it in any characterization. So to work with LILCO would be impossible in any emergency situation, and to work with a plan that has already been voided by the State courts, we would never do it. It's been a discredited plan and it's already been declared null and void by the courts.

Senator BREAUX. Mr. Brown, which case is he referring to?

Mr. BROWN. I'm sorry, I wanted to add something. Would I be out of order?

Senator BREAUX. No. It's just that I didn't see the case. I was wondering which one declared the plan null and void.

Mr. BROWN. Pardon me? Which court?

Senator BREAUX. Which case declared the plan of LILCO's null and void.

Mr. BROWN. LILCO's plan was held unlawful in a case styled *Cuomo v. LILCO*. It was the New York State Supreme Court's decision of February 20, 1983 that was affirmed by the Appellate Division of the State Supreme Court subsequently within the last year, Senator. I can't remember the date, but I suspect it's in one of the attachments that we have here, or I could provide it if necessary.

I was just going to add as a matter of legal observation, for whatever purpose might be relevant, the hypothetical which you raised is an interesting one because it comes up frequently in the context of the NRC.

In the Shoreham situation, the United States District Court for the Eastern District of New York and then the United States Court of Appeals for the Second Circuit upheld as lawful and rational the

determinations of Suffolk County, the actions not to adopt or implement an emergency plan. Those two courts held that there was no Federal duty for the county to do a plan. The New York State Court of Appeals, which is the highest court in the State of New York, on the initiative of LILCO bringing that issue before the court, ruled that there is no State duty; that is, the county did not have to do a plan under State law.

At the same time the State courts, both the State Supreme Court, which is the lowest court in New York, and the Appellate Division, which is the appellate level court, ruled that LILCO's plan is illegal.

The only device left for the NRC was to turn down the license for Shoreham. They instead adopted an advocacy position in the Shoreham case, to look for a means through which they could license the plant. And the means became a hypothetical, something built along the lines of the questions you posed, but somewhat different, and I thought it might be interesting to put it forward.

Since I think it's recognized that the Shoreham plant cannot be licensed by the NRC because there is no State, local or implementable utility plan, the Commission raised the hypothetical that if the plant were operating, would there be a response by the governments? And if we give the answers to that as yes, doesn't that necessarily mean the plant can operate? What it does is put the cart before the horse, though, because in the first instance, under the law today, given the absence of no State plan, no local plan, no utility plan, the plant can't be licensed. So the hypothetical of the NRC falls of its own weight.

Senator BREAU. It's not the NRC's hypothetical, and the hypothetical that I proposed was that a utility plan had been approved, that the NRC had taken the position that the utility plan can be developed safely without the active participation by State and local government. I think the question on that is, at best, still legally open as to whether a plan can be developed without local participation. And my assumption for the hypothetical was to assume that the utility plant was so developed, and the highest court finally said that it was a plan that met the standards as passed by Congress. The plant was licensed and it is operating. Then what would be the obligation of local government to try and participate if they felt they had one or not?

Mr. BROWN. I don't want to belabor it, but the facts of the Shoreham situation, in fact, have resulted already in the courts ruling, and the NRC accepting, a finding that the LILCO plan is unimplementable, that it is not a legal plan. Faced with that, the plant can't be licensed.

Senator BREAU. Well, excuse me, but I wasn't referring particularly to the Shoreham plant. I was just talking about a plant that had met its licensing procedures through that type of a procedure.

Gentlemen, I thank you. I know it's a very difficult job.

Mr. LORD. Mr. Chairman?

Senator BREAU. Mr. Lord?

Mr. LORD. I was just going to say that we've heard a lot today, especially with hypotheticals, and I think we've really boiled this down to the bottom line. The rule change proposal isn't hypotheti-

cal. It's a real effort geared and aimed directly at two plants, Shoreham and Seabrook.

Senator BREAU. We realize that.

Mr. LORD. And to deal with a hypothetical when we have the attempts at purported utility plans, the case of New York where the utility plan has been deemed inappropriate—

Senator BREAU. But Mr. Lord, I would suggest to you that the hypothetical I did mention is a possibility in the real world, and one day you may be faced with that decision of whether to participate or not. And my question was simply, would you or wouldn't you?

Mr. McEACHERN. Mr. Chairman, might I just add that we're going through this tortuous exercise and examination of Government all so that some company can make a dollar. We don't need the electricity, and it's not the national defense.

Senator BREAU. Well, that's something else.

Gentlemen, thank you. I appreciate your being here.

Mr. PROSPECT. Thank you, Senator.

Senator BREAU. We have one final witness for this afternoon. We would like to welcome at this time Dr. Richard Wilson of Harvard University.

Dr. Wilson, we are pleased to have you here and look forward to your testimony.

STATEMENT OF RICHARD WILSON, MALLINCKRODT PROFESSOR OF PHYSICS, HARVARD UNIVERSITY, REPRESENTING SCIENTISTS AND ENGINEERS FOR SECURE ENERGY

Mr. WILSON. Mr. Chairman, ladies and gentlemen, it's a pleasure to be invited to testify before this committee. I testify on behalf of a public interest group called Scientists and Engineers for Secure Energy of which I have been a founder member since its inception.

In the written record I state the details of my expertise. Among them I note the following: that my first involvement with emergency planning was in 1972 when I was a consultant to the Attorney General of Maine. I personally verified that the State of Maine did have an adequate plan, in my view, to evacuate the area around Maine Yankee nuclear power plant if ever that should prove to be necessary.

I also note that after Three Mile Island I was asked by the Governor of Massachusetts to be chairman of the committee to recommend what he should do, and we reported to that Governor, Governor King. Soon after that I wrote a guest editorial for Health Physics on emergency planning, which editorial has never received, to my knowledge, a word of criticism, and it has received some praise. With your permission, I'd like to add it to my testimony for the record.

I have also made a great study of the one place where evacuation was necessary around a nuclear power plant, and that is Chernobyl. I have talked to the Russian scientists about the accident. I have talked to the people in charge of the emergency planning, and I personally visited Chernobyl two months ago.

Since we've been told that Chernobyl, in fact, re-raises the questions about emergency planning, what you should do is have before

you one of the people who was responsible for that planning, and I suggest particularly Academician Ilyin, and I am sure he would come here if you could guarantee that the Washington Post wouldn't misquote him as they did last summer. Actually, if you really want somebody you probably could catch Academician Velikhov, who went down there as a scientist for three weeks immediately after the accident, climbed up over the power plant and got 25 rems of radiation dose. He will be in this country, arriving on Monday, and I'm sure that if you ask him to extend his stay and testify to you, he would do so.

Now, as a result of this experience I've come to a number of conclusions about emergency planning in this context which I would like to share with you. No one here has talked about what one is evacuating for, and in all human activity it is important to be clear what one is aiming at.

The aim of evacuation, as discussed by international bodies such as the International Commission on Radiological Protection, should be to prevent, insofar as is possible, that no one in the public gets a dose which leads to acute radiation sickness, and therefore a high probability of death. Smaller doses which lead to a small increased incidence of cancer, although highly undesirable, won't necessarily demand an evacuation any more than you would evacuate a smoke-filled committee room.

The Russians have adopted this policy, and particularly that you should evacuate if ever you believe the population were to get a dose of 50 Rems or more. At Chernobyl, they did have prior evacuation plans. They threw them overboard because they made no sense and completely rewrote new ones. It was an ad hoc plan made on the Saturday night after the accident. Nonetheless, it accomplished all of the above aims. No one got acute radiation sickness. Nonetheless, the Chernobyl accident was as large an accident as any we could envisage. We now believe that 50 percent, for example, of the radioactive iodine was released, and a very large amount of a large number of other radioactive isotopes.

The 45,000 people evacuated from the town of Prityat got an average dose of 3 Rems, less than what's allowed to a radiation worker for a year. The 24,000 in the countryside got up to 43 Rems, which is much bigger, but nonetheless none of them got acute radiation sickness.

One should note that it only adds one-half percent to the probability of dying of cancer for each of those individuals.

In this connection, I remind you of the appeal made by Dr. Ilyin and the leading pediatricians of the Ukraine. Noting that the Ukrainians will read anything that's in the American newspapers within a few days, they appealed to the Americans not to exaggerate the effects of the radiation, that those people who were evacuated—and particularly the children—have been dislocated enough and it's not fair to them to have them live with an unreasonable fear of cancer which is not justified by scientific facts.

Now, the Soviets recommend that one man have responsibility, therefore, for evacuation and matters attendant thereto during an accident. To this they attribute their success. Although immediately after the accident the control was, of course, local, in the Soviet Union, just as in the United States—it's the Ukraine, for example,

which had the local authority. Nonetheless, they accepted the help of the best that the Soviet Union could offer them. The Vice President, Boris Scherbina, came down to take charge of the evacuation within 24 hours, and they had the best scientists they could get—Velikhov, Legasov, Guskova, Ilyin, Khitrov, Pavlowski, and hosts of others dropped what they were doing to help. They were not mere bureaucrats; they were the best scientists the government had to offer. I would hope that in an emergency, the President would call upon the best people in the country to help, and I'm sure that they would respond.

Next I note in the USSR, moving people is harder than in the USA. The roads aren't as good. The road from Kiev to Pripjat on which I have traveled has only two lanes, about 20 feet wide, and there was a column of 1,100 buses coming up to evacuate people, and that was 12 miles long. Nonetheless, the evacuation itself took only two hours. With our many wide roads—and I must say, I have been and seen the roads around both Shoreham and Seabrook—they are far, far better, particularly if you are trying to get out. If you are trying to get in, they are small places with only a few parking lots. If you're trying to get out you soon get to six-lane roads.

Now, with this experience in front of us, I have developed some strong opinions about emergency plans which I want to share with you. Some of them are in this article; I was re-reading it, and there is almost nothing that I would change in that today.

Firstly, advance planning for emergencies should concentrate on how to get the necessary and proper information to people, such as radiation levels or these stage of the reactor, because moving people from place to place is one thing that state police know how to do, and they need remarkably little advance planning. A lot of experience, even in the Commonwealth of Massachusetts, which I studied seven or eight years ago, demonstrates this, evacuating people from overturned railroad tank cars, evacuating people from floods, from areas of hurricanes and so on.

Next, emergency planning should not be synonymous with evacuation planning, yet it's gotten to be that way. There are other actions which in most cases would be more appropriate. For example, I would personally believe, from everything I know, that beyond three miles from a power plant one should not evacuate until after one has taken measurements to actually justify it. Sheltering is almost certainly better, and by the way, that conclusion that sheltering works is borne out by measurements at Chernobyl because inside the buildings right now there is less radioactivity and lower radiation levels than those outside. I personally measured 0.4 Millirads per hour in the parking lot of the power plant, and one-sixth of that inside.

The next one, it is not possible to divorce discussions of emergency plans from estimates of the probability of the emergency. No one, for example, plans in this country for the direct hit of a meteor of a million tons on the USA; yet nonetheless, that has a certain probability, and it is higher than many of the probabilities of accidents that we've been discussing. It has long been recognized, for example, by Congress and the Nuclear Regulatory Commission that absolute safety is impossible, and an unreasoning

quest for it is undesirable. The Nuclear Regulatory Commission has spent a lot of time over the last 10 years developing quantitative safety goals, and they've been pressed into this by Congress. These safety goals are designed to ensure that, on average, nuclear power will be considerably safer than the technology it replaces. They promulgated these safety goals after considerable public hearing, and they haven't raised much controversy. It's interesting that the estimated probability of radioactive release from any U.S. nuclear power plants, and from Shoreham and Seabrook in particular, is sufficiently low that the safety goals could be met even if you don't evacuate at all in the course of an accident, and you have no evacuation planning.

That doesn't mean to say that you shouldn't have an evacuation plan, but that's additional to those safety goals.

Next, the emergency plans as presently being demanded by NRC and FEMA emphasize the wrong things. They don't emphasize the differences that a nuclear emergency has from others, and the differences are that in nuclear emergencies the information about whether you have to evacuate or not is more detailed and technical and you have to be able to get that information to the person who might be in charge and give that recommendation. After that recommendation, a nuclear emergency is much like any other.

There are several reasons, therefore, why my committee for the Governor of Massachusetts seven years ago recommended very strongly that all evacuation plans be considered together and nuclear plants not be considered separately. Unfortunately in all States that's gone backwards, and partially because of the legal and regulatory situations. The reasons are that plans need practice, and a practice plan with an unreal situation is not as good as a practice with a real emergency. Evacuating people because there's an overturned railroad tank car containing propane in a small village in Massachusetts is better practice than an artificial practice near Seabrook, New Hampshire.

Secondly, the most important and difficult state of mind to achieve for anyone is one of perspective. By integrating plans, regulators and the public alike will get perspective on the relative frequency and relative importance of different emergencies. At the moment, we're just concentrating on nuclear emergencies, and you must put them in perspective with these others.

Finally, if the plans are integrated, civil authorities can protect the public from emergencies for which there is no legislation and no budget.

Next, I want to point out that I am not a legal expert, but the procedure for licensing reactors is not merely a legal matter. It should be a common sense matter. There are two major steps: the construction permit hearing, and the operating license hearing. It was the obvious intention of the Atomic Energy Act that generic matters, matters concerning the suitability of the site, including whether it should be in the middle of New York City from which it would be very hard to evacuate, be decided at the first hearing. And in fact, sites in the middle of New York City are rejected.

The second should be held on whether the power station is built according to design, and whether any untoward effects on safety have occurred. And in fact, at the construction permit hearing the

State can effectively stop the action if it so wishes on the suitability of the site, and even a neighboring state can include strong representations if it so wishes. We heard this morning that the government of Massachusetts has always been against it, and I now want to address the fact that it has not always been against it.

For example, in the long construction permit hearings from about 1975 to 1979—I don't know the exact dates—the Commonwealth of Massachusetts could have put representations toward New Hampshire which could have blocked construction, but they didn't.

Now, under the guise of refusing to approve an emergency plan, the Governor of the Commonwealth is trying to block the operation. I ask you to look at the words of his press release as he announced this. They are very instructive. He stated his conviction that no adequate plan is possible. This is not because of an accident like Chernobyl, for which evacuation was obviously possible and happened; it's because a very severe accident with a very large release, unusually unfavorable weather, and little warning cannot be absolutely ruled out. No proponent of nuclear power has ever said that such an accident is absolutely impossible. Even though the probability is minuscule, it is less, for example, than the probability of the crash of a 747 into Fenway Park in the middle of a baseball game. It's less, even, than the probability of a crash into Fenway Park in the middle of a World Series game. The objection, therefore, is not on details which would obviously fall within the purview of an operating license hearing, but on matters which could have been known 10 years before. Not only could they have been known, I personally testify that they were known to the responsible officials of Massachusetts, and that they did not do all they could do to stop Seabrook, in spite of what was said this morning. I note for information that this was the period of time when the Attorney General did not have a good working relationship with the Governor. In fact, when I was chairman of this committee reporting to the Governor, I had a great deal of trouble getting any information whatsoever for our committee from the Attorney General's office.

It is important to realize that the magnitude and potential consequences of a potential and severe nuclear accident have been known for a long time. Congress asked the Atomic Energy Commission to prepare a study before the Atomic Energy Act was passed, about 25 years ago. This study, WASH 740, was prepared by scientists at Brookhaven National Laboratory, and gave estimates of casualties in the community and probabilities of these accidents. In 1975, a more detailed study, WASH 1400, became available under the chairmanship of Norman Rasmussen, who has now gotten the Fermi Prize for his landmark work. Recent improvements in reactors, made partially as a result of Rasmussen's study, and recent improvements in understanding since Three Mile Island, show that the probabilities of severe accidents and consequences of severe accidents are smaller than the experts thought they were in 1975, and much smaller than the anti-nuclear advocates thought they were. I testified on this before, to the House of Representatives last year.

I personally discussed the fact that accidents are possible, and in fact the probabilities that I've discussed were those of WASH 740, with the people in the Commonwealth, with Dr. Charles Henry Foster, when he was Secretary of the Environment; the Honorable Evelyn Murphy, now Lieutenant Governor, in Governor Dukakis' first cabinet. I also talked to Governor Dukakis' Energy Office and to Governor Dukakis himself. Therefore, it cannot be truthfully said that these are issues of which the Commonwealth was unaware at the time, nor can it be truthfully said that the knowledge of Chernobyl makes matters worse. It can be truthfully said that matters are now better than we thought they were, than the experts thought they were 10 years ago. It might be true that the general public is more aware than they were, but not that the experts are saying anything different or that they're saying that it's worse, or that the experts did not state that opinion to the relevant officials at the proper time.

Now, we've heard it said that the situation should be decoupled, for health and safety, from the financial issue. I would like to suggest a common sense approach to this matter. The situation would at once be clarified if this could, indeed, be done. I suggest the two Governors hand to the presidents of the power companies cashier checks for the amount of money expended so far on the power plants, and to buy them out. That amount of money might well be considered to be their due. When that money is in their hands, I would think the power plant presidents would be able to give a far more balanced presentation on whether they would like to proceed with the operation of the power plants or not. But without that in hand, then I think one cannot get any balanced presentation from anybody.

The suggestion I have is that there are a great number of things about emergency planning which need changing. I don't want to say that the emergency plans in progress are the best we can possibly have. Although, therefore, I hope that you will support the NRC's proposed rule change as an urgent interim measure, I hope you will press also for the further changes in emergency planning that are so urgently required.

Senator BREAUX. Thank you, Dr. Wilson.

Did Chernobyl have an emergency evacuation plan for that area that you know of?

Mr. WILSON. They had a very crude one. As far as I can see, it was much more crude than the ones we had in existence before Three Mile Island. And what plan they did have, they threw out.

Senator BREAUX. Do you know if they have revised their plans and now have in place more updated plans?

Mr. WILSON. I don't know any details of what they've done on revision. They feel very strongly that their ability to change at the time, very quickly and in accordance with what is necessary, has been demonstrated.

The reason they threw out the prior plan is because their plans had called upon the evacuation to take place due west from the plant, and the line due west was where the first plume of radioactivity had blown and had fallen, and that was just the route where they did not want the buses to travel, so they had to change the plans.

Senator BREAUX. Who, in your opinion, would be the proper supervisory personnel to make the decisions in the event of an emergency occurring? You just spoke to the fact that evacuation is one thing; evacuation in the right direction is a goal that should be achieved. Who makes those decisions? Does it take someone with expertise in nuclear power to make those decisions?

Mr. WILSON. No. I personally believe, as has been said before in this meeting, that the proper decision should be with the Governor of the State, and he probably—if there is a severe accident, I think I would think much worse of the Governor of my State if he did not take personal charge and get the best expert help that he could.

Now, he would have to call on expert help for that, and of course it is desirable for him to know in advance where that expert help is. But of course, it is quite clear that a part of that expert help will be available in the local power company.

Senator BREAUX. You've heard the discussions today; can an emergency plan be approved, in your opinion, by the NRC that would have been developed without the participation of State and local governments?

Mr. WILSON. Well, it depends, again, what you're asking the emergency plan to achieve. If you're asking it to achieve what is flatly impossible, that is, in accidents of minuscule probability of very large radioactivity release with no warning, with very unfavorable weather, and to get everybody out so that no single person ever gets a dose of, say, more than 5 Rems, that is just not possible, and the Governor of Massachusetts correctly said it's not possible. But I think that is an unreasonable demand to make on an emergency plan, and it is made on no other technology in our society that I know of.

Senator BREAUX. Of course, it's not made in this instance either in the sense that the law calls for "reasonable assurances."

Mr. WILSON. That's correct, and that's precisely what the Governor of Massachusetts did not address in his statement of September 20th of last year. He was very explicit in what he was addressing and not addressing, and he very explicitly said, it is not my business to address what the probability of such things is.

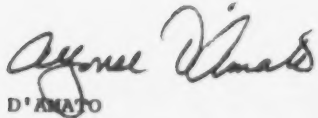
Senator BREAUX. Well, we appreciate your comments. You bring a great deal of expertise to the committee, and we recognize that and will give that credibility to your testimony. We thank you for being with us. You've been very helpful.

With that, this witness is excused.

This will conclude our hearing today, and the committee will stand adjourned until further call of the Chair.

[Whereupon, at 4:40 p.m., the subcommittee was recessed, to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]



STATEMENT BY SENATOR ALFONSE D'AMATO
BEFORE THE SUBCOMMITTEE ON NUCLEAR REGULATION
MAY 7, 1987

Mr. Chairman, Members of the Subcommittee, I appreciate this opportunity to comment on the NRC's proposed rule changes regarding emergency planning. I commend you for holding this hearing. As you know, this issue is of great concern to citizens of New York living near the Shoreham facility on Long Island.

As I have stated publicly on several occasions, I believe that the NRC is seriously undermining its credibility by even considering these changes. To propose that a plan which may never have been tested, which has not been agreed to by the responsible State and local officials and which has no precedent is sufficient to protect citizen safety is sheer and utter nonsense. Such a plan would be about as much good as no plan at all.

I would also like to note that I have seen Secretary Herrington's letter to the distinguished Ranking Minority Member of this Subcommittee, Senator Simpson, in support of the NRC proposal. I am extremely disappointed that an Administration official would take this position. The President himself has stated, in a letter to former Congressman Carney in 1984, that "this Administration does not favor the imposition of Federal

government authority over the objections of state and local government in matters regarding the adequacy of an emergency evacuation plan for a nuclear power plant such as Shoreham."

I share President Reagan's belief that we should respect the rights of state and local governments regarding emergency planning. After all, we cannot expect local residents to have confidence in an evacuation plan which was prepared over their objections.

The Commission itself notes, in its memo recommending issuance of the proposed rule, that the regulations requiring state and local cooperation were issued in 1980 in response to the inadequate offsite response to the accident at the Three Mile Island plant in March of 1979. I believe that the reason for the 1980 regulations is stronger today than ever. I don't think any of us here today have a desire to regress to the less stringent requirements which existed before Three Mile Island.

This NRC proposal is based on the assumption that, in the event of a real emergency, state and local governments would be able to respond despite having been excluded from participation in emergency planning. The NRC just blithely assumes that an integrated, effective plan would somehow fall into place. Mr. Chairran, this is like saying that a man who doesn't know how to swim can jump in and rescue a drowning man simply because he wants to. It is a fatally dangerous fiction. It is an

embarrassment that it was proposed. Such an idea cannot be acted upon by serious people.

The citizens of Long Island have grown skeptical of the NRC's commitment to their safety. The people rightly suspect that the NRC is a short-sighted bureaucracy dedicated to the operation of Shoreham at virtually any risk to the public's safety. Those who live on or visit Long Island know from years of experience that the inadequate roadway system there could never handle a major evacuation. Even the President's former Chief of Staff, Donald Regan, a former Long Islander himself, frankly admitted this fact last year.

It is time for the NRC to acknowledge the risks. It is time for the Commission to do its job and listen to the public. It is time for the Commission to acknowledge that the state and local governments have rationally and responsibly determined that Long Island cannot be safely evacuated. It is time for a little common sense at the NRC.

The February 13, 1986, exercise of LILCO's evacuation plan was a pointless, useless charade. It was a fraud which cannot possibly assure public safety.

When the Federal Emergency Management Agency (FEMA) completed its evaluation of the February 13 test, FEMA's own Regional Director, Frank Petrone, announced that FEMA found no reasonable assurance that the public safety would be protected in

the case of an accident at Shoreham. FEMA headquarters in Washington did not want that said. The head of FEMA -- General Julius W. Becton, Jr. -- personally forced Mr. Petrone to resign. But the truth remains -- the public cannot be protected.

A major nuclear accident on Long Island would be a tragedy of unprecedented proportions in this country. In Suffolk County alone there are 1.3 million people. The Long Island Expressway is notoriously jammed, even on the most perfect of days. No one knows this better than the local officials. In a nuclear accident, traffic on Long Island would halt in total gridlock. Dangerous exposure to radiation would occur long before people could escape.

The bottom line is this: The NRC should not adopt any rule allowing Shoreham to be licensed over the objections of the state and local governments. The actions of these governments have been upheld by federal and state courts. The NRC has no right to evade the law and the clear consequences of the courts' rulings. The decisions of New York State and Suffolk County have been held a proper exercise of their constitutional police powers. No NRC or other federal intrusion is warranted.

Eighty percent of Long Island's residents oppose the opening of this plant. The former FEMA Regional Administrator, Frank Petrone, put his reputation and, it turns out, his job on the line by stating that LILCO's evacuation plan can not assure the public safety. The tragic lessons of Chernobyl and Three Mile

Island show that the threat of a nuclear accident is not simply theoretical.

Mr. Chairman, we can not return to the "ignorance is bliss" attitude which prevailed before the accidents at Three Mile Island and Chernobyl. Until the day we can assure the public that such an accident could not occur again, we must be prepared to deal with it, and this includes effective emergency preparedness. This proposed rule guarantees only disaster. At Shoreham, the state and local governments have, in good faith, demonstrated that emergency evacuation is impossible. The Commission must deal with reality, however difficult. Its persistence in fantasy endangers millions of Americans.

Thank you, Mr. Chairman.

STATEMENT OF THE HONORABLE THOMAS J. DOWNEY
(Second Congressional District of New York)

Before the Subcommittee on Nuclear Regulation
The United States Senate

May 7, 1987

Mr. Chairman, I wish to thank you for holding this hearing today in the Subcommittee on Nuclear Regulation. I especially want to thank you for allowing me to submit this statement for the record of the hearing.

Mr. Chairman, just a few days, ago on May 4, I delivered over 20,000 letters to the Secretary of the Nuclear Regulatory Commission, Mr. Samuel J. Chilk. These letters, expressing my constituents' opposition to the Commission's proposal to change the rules regulating the licensing of nuclear power plants, clearly indicate the depth of public concern about the need for emergency response plans for nuclear power plants. As you know, Mr. Chairman, such an outpouring of concern is unusual and means that we must sit up and take notice.

This is not the first time that the people of Suffolk County, New York have spoken out about the NRC's proposal to ease its safety planning requirements for nuclear power plants in general, and Shoreham in particular. Just last week, the Executive of Suffolk County and most of the members of the Suffolk County Legislature testified before Chairman Morris Udall's Subcommittee on Energy and the Environment on the subject of the rule change.

Last February, five United States Senators, eight United States Representatives and four state governors appeared before the Nuclear Regulatory Commission to offer their views on, and in most cases to state their opposition to, this proposed change.

The proposal would allow the NRC to issue a full power operating license for a nuclear power plant in the absence of an emergency response plan developed and implemented by state and local government authorities.

Mr. Chairman, this proposal is totally unacceptable. It is unacceptable to me as a Member of Congress who represents half a million people whose health and safety will be affected by the rule change. It is unacceptable to the officials of the State of New York and of Suffolk County.

What are our concerns?

Broadly stated, the proposed rule which the NRC staff drafted usurps the police powers of state and local governments. This rule change goes far beyond simple regulatory reform. It threatens, in a most serious way, the health and safety of millions of Americans who live in areas around nuclear power plants.

As I read the NRC staff paper, I was struck by the fact that it relegates public health and safety considerations embodied in the emergency planning requirement to a subsidiary role in the licensing process. How else can I interpret the statement that "... adequate emergency planning and preparedness are needed and important, but that they represent an additional level of public protection . . . and that therefore some regulatory flexibility is warranted and non-safety costs may be taken into proper account"?

In his opening statement at the NRC hearing on February 24th, NRC Chairman Zech attempted to reassure the public that health and safety were his primary concern. He stated that "... the responsibilities of the Commission to ensure that reasonable assurance of public health and safety is provided will remain the decisive criteria for issuing an operational license."

Unfortunately, just a few days later the Chairman undermined that assurance by voting, with a majority of his colleagues, to proceed to the next step in the process of changing the rules. So the process goes forward and we face the distinct possibility that the NRC will deprive state and local elected officials of their responsibility to act to protect their constituents.

Why does the NRC insist on its perverse policy change? What has changed since 1980, when the requirement for emergency response planning was first adopted? Why has the NRC decided that this "additional level of public protection" is no longer necessary?

I can hazard a guess. When I see the words regulatory flexibility, I wonder if this is not part of a broader program of regulatory relief which this Administration advocates so strongly. In fact, Mr. Chairman, during the February proceeding, one of our colleagues made an interesting point in defense of the NRC rule change. He noted that "[t]he Atomic Energy Commission was created to provide the proper care and feeding of the atomic genie" Could it be that, in the name of regulatory flexibility, the Nuclear Regulatory Commission has decided to cease regulating nuclear

utilities in favor of a more nurturing role? Certainly this is the impression that many of my own constituents have.

The staff paper accompanying the proposed rule change acknowledges that there is no new scientific safety data available which would support the rule change.

When I look at developments since Three Mile Island, which inspired the 1980 ruling, I see two major tragedies which seem to argue for better planning. The Challenger explosion showed us that even the most expensive technological systems with elaborate fail safe mechanisms can and do fail. Chernobyl showed us what happens when a nuclear accident does happen. Neither of these two events lead me to believe that the NRC would be justified in changing the rule. Instead they point clearly to the need for an emergency response plan developed and implemented with the full cooperation of state and local authorities.

I would ask the NRC Commissioners to think again about the problem they seek to solve. When they ask how can we change the rule to get around the fact that there are state and local authorities who are not cooperating in emergency response plans, they are asking the wrong question. The question they should really be asking is why do these governments believe that they cannot adequately provide for the health and safety of their constituents? The opposition of so many elected officials ought to raise some doubts in their mind about the wisdom of their proposed course.

If I may return to the February 24th proceedings yet again, Mr. Chairman, I would like to cite a statement made by NRC Chairman Zech. Admiral Zech said "I would like to emphasize at the outset that the Nuclear Regulatory Commission has had a long and successful history of cooperating with the state and local governments involved in issues surrounding Nuclear Regulatory Commission activities. The Commission is committed to continuing this cooperation in all areas of mutual interest."

First, given this long and successful history of cooperation, doesn't it strike the Commissioners that perhaps there may be some merit in the position that state and local officials are taking. After all, by Admiral Zech's own admission, they have demonstrated a cooperative attitude in the past. Indeed, officials of the State of New York have worked closely with the NRC with regard to other nuclear power plants in New York. Doesn't it make them wonder why Governor Cuomo and officials from Suffolk County are so adamantly opposed to the licensing of Shoreham?

Second, I must confess that I am puzzled by Chairman Zech's reference to "mutual interest". Does he really mean to imply that where getting nuclear power plants fired up is concerned, the interests of the NRC and state and local officials diverge? As the distinguished senior Senator from New York pointed out on February 24, Congress does-not see a divergence of interest. Senator Moynihan reminded the Commissioners that the Senate rejected an amendment in 1979 that would have allowed the NRC to put evacuation

plans into effect without the consent or participation of state and local authorities.

If the proposed rule change is adopted, then surely there will be a divergence of interest. Then I fear that we all have great cause for alarm - we will have returned to the old idea that the NRC Commissioners' first responsibility is the care and feeding of the nuclear genie. But the days of unbridled faith in nuclear genies are long past. The Atomic Energy Commission was formed in the heady atmosphere of the dawn of the atomic era. The shimmering intellects and accomplishments of the physicists and engineers who first split the atom led policy makers to place greater faith in the atomic genie than they might otherwise have done.

Today, we have learned to be a little more skeptical of the atomic genie. We have also learned that we cannot ignore the concerns of those who live in the shadow of nuclear power plants. We can no longer approach the licensing of a nuclear power plant as a series of technical problems. There are broader health and safety issues that are not so easily solved. If a nuclear power plant is sited in a place such as Shoreham they may never be solved. That is why the NRC should listen to the elected officials it would like to cut out of the process. We are not in a laboratory. We may not be technical experts. But we can hear the voice of the people.

STATEMENT BY JULIUS W. BECTON, JR.
DIRECTOR
FEDERAL EMERGENCY MANAGEMENT AGENCY
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
OF THE
COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

MAY 7, 1987

I am pleased to appear before this hearing of the Subcommittee on Nuclear Regulation to discuss the Federal Emergency Management Agency's (FEMA) radiological emergency preparedness (REP) program. My remarks today will cover the following topics: A brief overview of FEMA's REP program; a summary of current REP program issues; some comments on lessons learned from the Chernobyl accident; implications for the REP program, and program management plans for the next two years; and a comment on the Nuclear Regulatory Commission's (NRC) proposed rule change affecting offsite emergency planning at commercial nuclear power plants.

Because of FEMA's responsibilities in support of the Nuclear Regulatory Commission's (NRC) licensing process, emphasis is given to REP program activities associated with commercial nuclear power plants. My remarks, therefore, will address these activities.

In December 1979, the President assigned FEMA the lead role in coordinating off-site radiological emergency management activities after the Three Mile Island accident. This assignment was in keeping with our general mandate under Executive Order 12148 to coordinate Federal emergency management activities for all types of disasters and emergencies.

I would like to outline the context of program procedures and philosophy in which the REP Program is managed. The primary concern of FEMA's REP program is the public health and safety around nuclear power plants. FEMA works to achieve this goal through an evaluation of plans and preparedness under the process published at 44 CFR 350. This FEMA process, known as the

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"350 process," is based on a formal submission by the Governor, or his/her designee, of the State and local plans for the Emergency Planning Zone around a specific commercial nuclear power plant. The evaluation process includes participation by a Regional Assistance Committee (RAC) chaired by FEMA and including officials of nine Federal Agencies. The RAC reviews the plan and its members render advice on their particular area of expertise. The plans are reviewed against the criteria of NUREG-0654/FEMA-REP-1, Rev. 1. This guidance document was developed jointly by FEMA and the NRC with full public participation. It encompasses the standards for developing, reviewing and evaluating licensee, State and local government radiological emergency planning and preparedness. The appropriate FEMA Regional Office coordinates the planning review and assures that an exercise is conducted to adequately test the plans. It also holds a public meeting to inform interested parties of the content of the plans and what would be expected of the public in the event of an emergency at the plant.

The plans are approved by the FEMA Associate Director of State and Local Programs and Support. This is done only if a determination is made, following appropriate plan exercises, that there is reasonable assurance that the health and safety of the public living in the vicinity of the plant can be protected in the event of a radiological emergency at the plant. However, the process does not end with the initial approval. The State and the affected local governments must continue to keep plans updated. They must also participate in periodic exercises with the utility as a condition of continued FEMA approval.

At this time, FEMA has provided 350 approvals for 46 sites with one or more nuclear power reactors. We hope to add approvals for about 25 more sites by the end of 1988, provided the States submit the necessary plans or plan revisions to FEMA for review. Exercises have been conducted two or more times at all licensed operating plants.

FEMA and NRC have also signed a Memorandum of Understanding (MOU), most recently revised in April 1985. This MOU calls for FEMA to provide NRC with interim findings for its use in the licensing process. The MOU permits NRC to request and obtain such findings from FEMA based on the review of plans currently available to NRC, including utility plans. These "interim" findings are a snapshot in time of the preparedness posture at a given site.

FEMA uses information developed under both of these processes to fulfill its role as advisor to the NRC on offsite safety around nuclear power plants. It is NRC, not FEMA, that makes the final decision on the adequacy of offsite safety.

Because the REP Program is a dynamic one, issues of special interest have arisen from a variety of sources, ranging from exercise evaluations and plan reviews to licensing hearings. Due to FEMA's role in emergency planning and preparedness, we have focused in detail on several issues, some of which I would like to address at this time.

1. SHELTERING

To date, more emphasis has been placed on evacuation than sheltering as a protective measure in the event of an accident at nuclear power plant. FEMA plans to examine specific concerns associated with sheltering as a protective action option. Examples are the relative protection against radiation afforded by different types of residential structures and infiltration rates of radioactive gases and particles into various types of residential structures.

2. ALERT AND NOTIFICATION

The major issue impacting alert and notification system standards and evaluations is the contention that was filed in the Shearon Harris Atomic Safety and Licensing Board (ASLB) proceedings alleging that the alert and notification system installed at this site is not adequate to awaken the population at night during the summer months with windows closed and air conditioners running.

In response to this contention, FEMA convened a panel of experts to address this issue at the Shearon Harris hearings which began in November 1985. Following the hearings in which FEMA testified, members of the licensing Board informed the NRC Commissioners in a letter dated November 19, 1985, of "evidence of generic safety problems involving nighttime alerting at all nuclear power plants." Thus, the resolution of this issue could have a significant impact on the design and operation of alert and notification systems at all commercial nuclear power plants. FEMA provided a position paper on this issue to the NRC on

December 11, 1986, requesting that current standards be retained.

NRC staff prepared and forwarded a position paper supporting current alert and notification standards to their Commissioners in February 1987, where it remains under review.

3. RESULTS OF CHERNOBYL ACCIDENT

FEMA has been involved with NRC, the Department of Energy (DOE), the State Department and the nuclear power industry in activities related to the Chernobyl Nuclear Power Plant accident. Our main concern has been to learn as much as we can about the Soviet response to the accident so that we can assess the implications for the Radiological Emergency Preparedness program here in the United States. We agree with the staff of the NRC in their identification of areas where FEMA's emergency planning and preparedness program may warrant study in view of the Russian experience. These areas are the (1) size of the emergency planning zones; (2) the emergency medical response, including the use of Potassium Iodide; (3) ingestion pathway measures; and, (4) decontamination and reentry. FEMA will continue to review this data and make adjustments to our program where warranted.

4. PROGRAM MANAGEMENT OBJECTIVES

We have also initiated activities to establish greater consistency in our Regional review and evaluation of State and local government emergency planning and preparedness, especially with regard to their participation in exercises. To achieve that goal, we are:

- a) Developing a REP Exercise Manual to set forth guidance for all exercise-related activities that impact the Agency's review and evaluation functions. This Manual will be issued this fiscal year and will contain

uniform guidance for our Regions to use for all pre-exercise, exercise, and post-exercise activities.

b) Revising our evaluation methodology based on its use since August 1983. We expect to achieve even greater uniformity in exercise evaluations as a result of the refinement of the present format.

c) Conducting a standardized course to train REP exercise evaluators. Through this carefully developed course, Federal, State, local and contract staff are instructed in current guidance on observing and evaluating REP exercises. State and local participation was encouraged during pilot offerings, which proved to be very helpful. Emphasis is placed in the course on a standardized approach for all FEMA Regions to use in evaluating exercises.

Efforts are also being made to assist State and local governments in developing and refining their plans, to meet Federal requirements. These efforts are also aimed at achieving greater consistency in the Federal evaluation of these plans. The development of guidance on ingestion pathway measures is an example of this effort. This will entail planning for the protection of agricultural products which may be contaminated following an accidental radioactive release. Another, major effort is the ongoing clarification and revision of NUREG-0654/FEMA-REP-1 planning standards and evaluation criteria, undertaken by both the NRC and FEMA, which will result in improved guidance for State and local governments and for Federal evaluators. While initial steps had been taken by the NRC and FEMA to revise the entire document, we are currently revising selected portions. Selections were based on a needs

assessment study undertaken with State and local governments, utilities and Federal officials, which set priority targets for revisions. A more complete revision may be undertaken following completion of the studies of the Chernobyl accident and the resulting reassessment of emergency preparedness needs and the NRC's review of the source term data. Source term refers to characteristics of radiological releases with respect to the amount and type of materials released, estimated dose level and time in which a significant release could impact offsite population. These calculations are important to make decisions about protective measures, size of emergency planning zones and design of alert and notification systems.

Of course, the NRC and FEMA will continue to work closely to address issues as they arise in the REP program. Current concerns include participation of State and local governments in radiological emergency planning and preparedness and the proposal provided to the Congress on funding 50% of the REP program costs through the assessment and collection of fees from NRC licensed utilities. FEMA sent a feasibility study on fees collection to Congress on March 19, 1987; the Administration's proposed legislation on that issue was sent to Congress on April 16, 1987.

Another issue of recent interest has been the NRC's proposed rule change on offsite emergency planning at commercial nuclear power plants. FEMA delivered its formal comments to NRC on the proposed rule on April 28, 1987. A copy is attached to my statement for the record. FEMA recognizes not only the authority but the need for the NRC to periodically adjust its regulatory framework. However, we are concerned with some of the possible ramifications

of their proposed rule on FEMA's ability to perform its consultative role to the NRC. Whatever the outcome of the NRC's rulemaking action, we shall continue to have close coordination and good working relationships with NRC.

In closing, I would like to emphasize that FEMA continues to give priority in the REP program to providing to the NRC findings and determinations on the adequacy of State and local government planning and preparedness around commercial nuclear power plants. In carrying out these responsibilities, we believe that FEMA has made significant contributions to enhancing the capabilities of State and local governments to respond to radiological emergencies. Moreover, we believe the enhanced capabilities of State and local governments resulting from their participation in the REP program contribute significantly to their capabilities to respond to all types of disasters and emergencies.

This fact has been demonstrated in at least two chemical emergencies: A chemical tank explosion at the Union Carbide Corporation chemical plant in Taft, Louisiana on December 11, 1982, and the recent chemical fire at the Spencer Metal Processing Company in Nanticoke, Pennsylvania on March 24, 1987. In both cases, local emergency officials drew upon emergency planning and preparedness information and resources developed for nearby commercial nuclear power plants, the Waterford Nuclear Power Plant in Louisiana and the Susquehanna Nuclear Power Plant in Pennsylvania. In conclusion, we believe that communities participating in the REP program are among the best prepared communities in the nation to respond to any kind of disaster or emergency.

I would be happy to respond to any questions or comments at this time.



Federal Emergency Management Agency

Washington, D.C. 20472

April 28, 1987

Mr. Samuel J. Chilk
Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Comments on Proposed Rule on Licensing of Nuclear Power Plants Where State and Local Governments Decline to Participate in Offsite Emergency Planning

Dear Mr. Chilk:

This letter provides the comments of the Federal Emergency Management Agency (FEMA) on the Nuclear Regulatory Commission (NRC) proposed rule, "Licensing of Nuclear Power Plants Where State and Local Governments Decline to Participate in Offsite Emergency Planning." This proposed rule was published in the Federal Register on March 6, 1987 (52 FR 6980).

The NRC has proposed a change in its regulations which would permit the licensing of nuclear power plants where State and local governments decline to participate in the design, exercise, or implementation of offsite emergency preparedness planning. Under those circumstances, the proposed rule change would permit the applicant to be licensed upon showing that (1) its inability to comply with the normal emergency planning requirements could be remedied or adequately compensated for by reasonable cooperation by the State and local governments, (2) the applicant has made a good faith and sustained effort to obtain this cooperation, (3) the plans developed by the applicant include all effective measures to compensate for the lack of cooperation which are reasonable and feasible under the circumstances and which take into account a possible State or local response to an actual emergency, and (4) the applicant has provided copies of the plan to all governments which would have otherwise have participated and has assured them that it stands ready to cooperate with them.

FEMA notes, as a first premise to its comments, that, under the Atomic Energy Act, legal responsibility for the licensing of nuclear power plants is vested exclusively in the NRC. In setting standards for licensure, the Commission defines the threat to be prepared against, and it is the Commission which determines what level of preparation is necessary to meet the defined threat. Prior to the incident at the Three Mile Island Nuclear Power Plant in March 1979, there was no licensing requirement for offsite emergency planning and preparedness. Following that incident and the report of the Kemeny Commission in the same year, the NRC strengthened its regulatory requirement that offsite

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emergency response planning and preparedness be instituted and be demonstrated adequate to protect the public before new licenses would be issued. It also adopted the Kemeny Commission recommendation that FEMA should take the lead responsibility for offsite emergency plan evaluation. Additional requirements were established to insure such planning and preparation would be accomplished at previously licensed plants.

As a second premise, FEMA acknowledges that decisions by the NRC on obtaining and maintaining operating licenses are based in part on a composite review of offsite emergency capabilities and those provided by the utility within the plant. The NRC has the authority to determine the relative importance of offsite emergency preparedness in the licensing decision. This statement of FEMA's views on the proposed rule is made on the assumption that adequate offsite emergency planning and preparedness are still considered essential to obtaining and maintaining an operating license.

The proposed rule change is evidently intended to address the preemption issue which is at the center of the litigation over licensing of the Shoreham Nuclear Power Plant and the Seabrook Nuclear Power Plant. The particular issue is whether State and local governments should be able to do indirectly, by declining to participate in offsite emergency planning, what they may not do directly, that is, effectively veto the regulatory decisions of the NRC as to the siting and licensing of nuclear power plants. FEMA believes that this issue of the indirect veto of NRC decisions by state and local governments involves matters of significant public policy which may ultimately have to be resolved by the Congress.

While FEMA has no view as to the validity of any position the NRC may take on the preemption issue per se, the agency does note that the effect of the proposed change is to require a showing that the applicant has taken all reasonable and feasible steps to develop an offsite emergency plan and response capability rather than a showing that the emergency response plans offer reasonable assurance that adequate measures to protect the public can be taken in the event of an emergency.

On its face, the proposed rule incorporates a fundamental change in the way that offsite emergency planning would be evaluated by FEMA if the NRC requests findings and determinations as to whether offsite emergency plans are adequate and can be implemented. It would eliminate the need for full-participation exercises (those testing the capacity of State and local governments) both before and after licensing. Even if exercises are conducted, their value is seriously diminished without the participation of State and local governments. Full-participation exercises serve several important purposes. They are not only tools for evaluating written plans, they are also a means for their refinement and a training vehicle for the emergency personnel who will be called on to respond to an actual emergency. FEMA is of the view that State and local participation, as in the present approach, offers all concerned with offsite emergency planning and preparedness a wealth of experience and sensitivity to local circumstances, the loss of which could

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have serious adverse consequences for such activities at existing and future plants.

In February, 1986, FEMA participated in an exercise that did not include State and local governments. The roles of key government officials were played by FEMA employees. From this experience, FEMA concludes that the practice of simulating governmental participation has several important consequences. First, the real-time interaction between officials and other emergency responders is not realistically tested. That compromises the quality of the findings which FEMA is able to make about the preparedness of those other responders. Secondly, the preparedness of the State and local governments is not demonstrated in any meaningful sense. As a result, the conclusions that FEMA would be called on to make about the probable response of State and local governments would be based largely on conjecture. FEMA is very reluctant to certify that adequate protective measures can be taken where any finding would be based on such a degree of conjecture.

The refinement of emergency plans which is the natural outcome of an exercise could also be compromised. The observations on which such refinements would be made are less valid without the participation of State and local governments. Furthermore, these governments may not be committed to changes in their usual ways of operating in emergencies. They are certainly not likely to change their routines during an actual emergency, even if they are convinced of the wisdom of the changes. The lack of training which would, in all probability, follow from holding exercises without State and local government participation would also increase the risk to the population of the affected emergency planning zones.

The existing regulatory scheme anticipates that there will be detailed, documented, provisions in advance of an emergency for the plume exposure emergency planning zone (10 miles out from the plant) and that ad hoc responses will be undertaken as necessary to supplement preplanned actions. This proposed rule would, in effect, sanction extensive across-the-board ad hoc responses. The proposed rule incorporates as a basic premise the assumption that State and local governments are likely to respond in an actual emergency because state law requires them to do so and also because that would presumably be the natural reaction of government officials in time of emergency. Even if the premise is valid, the ad hoc nature of their response could have unfortunate consequences. It does not assure that the full range of necessary actions will be taken. It does make it highly likely that any response will be uncoordinated. To the extent that utility company officials step into the roles of government officials, such as by recommending specific protective actions, there is a high probability that the public and emergency responders will receive conflicting instructions. FEMA also notes that, while the legal issue of the authority of utility officials to perform critical emergency functions in place of State and local officials has been considered by the courts of New York State, it has not been resolved throughout the country.

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The concerns identified above relate to communities which have declared or demonstrated an unwillingness to take part in emergency response planning. FEMA is equally concerned that the incentive for cooperative State and local governments to continue their efforts could be diminished should the proposed rule be adopted.

In addition to the major concerns expressed above, FEMA questions several assumptions made explicitly or implicitly in the proposal:

1. The belief expressed by the NRC that State and local governments which have not been involved in emergency planning would nonetheless respond to an actual emergency and follow a comprehensive utility plan is open to question. FEMA has no data that would indicate what State and local government reactions might be in such circumstances.
2. The assumption that the proposed rule change will lessen the burden of litigation is debatable. The phase of the licensing hearings having to do with emergency planning will be no less intense than before and can be expected to be more complex because of the uncertainties introduced into the issue of the adequacy of offsite emergency preparedness. It follows that the potential litigation costs related to the proposed rule would probably be no less than under current regulations.
3. The claim that the requirement for planning placed on State and local governments by Title III of the Superfund Amendments and Reauthorization Act of 1986 would prompt more State cooperation regarding nuclear power plant emergency planning is not supported by facts. The State and local organizational structures for carrying out the provisions of Title III are mandated by law and, in most cases, existing structures will be used. It is not the presence of emergency management structures such as provided under Title III that is at issue. Rather, the question is whether those organizations are willing to participate in nuclear power emergency preparedness.

The adoption of proposed rule would not, in an of itself, resolve FEMA's difficulties in providing findings regarding reasonable assurance for offsite preparedness if state and local governments do not participate. The current Memorandum of Understanding between FEMA and the NRC charges FEMA with evaluating offsite emergency response plans against the criteria set out in the jointly developed guidance document, NUREG 0654/FEMA REP 1, Rev. 1. This guidance document assumes that there will be extensive involvement of state and local governments in the development and implementation of these plans. Without such involvement, many of the evaluation criteria cannot be satisfied. In addition, as noted above, the absence of state and local involvement frustrates or, at the very least, complicates the process of exercising the plans. If FEMA is not able to bring its evaluation process to a conclusion, it cannot offer the NRC the findings it requests. As the NRC

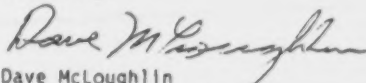
Mr. Samuel J. Chilk, Page 5.

staff seems to have recognized in its presentation of the proposed rule to the Commission, new guidance and standards for evaluation of such an emergency preparedness structure would have to be developed. As staff has recognized, this task is not insignificant and when considered in the light of requisite litigation bears major resource ramifications for this agency.

The NRC statements on this rule and our comments above make it clear that we share a common view that off-site emergency preparedness is best served by active state and local government participation. Should the NRC find the proposed rule appropriate and necessary, we would expect to continue our productive relationship. We would also hope that the NRC would carefully monitor the participation of state and local governments in order to adjust requirements that might discourage such participation.

We appreciate the opportunity to comment on this proposed rule.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dave McLoughlin".

Dave McLoughlin
Deputy Associate Director
State and Local Programs
and Support

SHERWOOD H. SMITH, JR.
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
CAROLINA POWER & LIGHT CO.
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

May 7, 1987

Thank you Mr. Chairman and members of the Committee for the opportunity to appear before you today to discuss emergency planning for nuclear power plants. I am currently the Chairman and Chief Executive Officer for Carolina Power & Light Company. Carolina Power & Light Company serves an area of about 30,000-square miles with a population of over three million in North Carolina and South Carolina. In size, our area is comparable to the combined states of Connecticut, Massachusetts, Rhode Island, New Jersey and New Hampshire. We have long been a leader in the development of electricity produced by nuclear energy and built the first commercial nuclear power plant in the southwestern United States which has operated safely and successfully for over 16 years. We presently own and operate four nuclear units at three sites which generated almost 14 billion kilowatt-hours in 1986, representing 35% of our total electrical production.

I am a former Chairman of the Edison Electric Institute and the American Nuclear Energy Council, and I am appearing here

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today to represent the interests of our nation's electric utility industry as well as my own company. There are over 100 nuclear units operating in this country, which are providing about 17 percent of our nation's electricity. By 1990 there should be about 120 nuclear units producing about 20 percent of our electric supply. Our industry is committed to safety and has achieved a remarkable record of over 1650 years of cumulative, safe reactor operation, whereby no one has been killed or injured from the use of nuclear energy to produce electricity at any of our plants.

My objective in testifying today is to urge this committee to understand and to support the Nuclear Regulatory Commission's efforts to resolve in a responsible fashion a potentially serious threat to this nation's energy security. This threat comes from the present vulnerability of nuclear power plant licensing and operation due to the actual or potential non-cooperation of local and state authorities in off-site emergency planning. I am persuaded this issue poses an unreasonable and unnecessary threat to this nation's energy supply and that it is contrary to the development and use by NRC of appropriate and effective safety standards in the field of radiological health and safety.

NRC's proposed rule, which would clarify its existing authority to license a plant despite lack of cooperation, in my opinion is a proper and responsible exercise of NRC's congressionally-established authority. I urge this Committee to support NRC in this effort. NRC's proposal is consistent with the authority vested

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in it by the Atomic Energy Act and reiterated numerous times by Congress in various Authorization and Appropriation Acts since 1980. In the 1980 Authorization Act, for example, the House-Senate Conference Committee, several members of which are present here today on this committee, explicitly opposed the notion of using emergency planning as an indirect veto of an operating license:

The conferees sought to avoid penalizing an applicant for an operating license if a state or locality does not submit an emergency response plan to the NRC for review or if the submitted plan does not satisfy all the guidelines or rules. In the absence of a state or local plan ..., the compromise permits NRC to issue an operating license if it determines that a state, local or utility plan ... provides reasonable assurance that the public health and safety is not endangered by operation of the facility. (Ref. 1)

It is important that Congress not take any action that would impede the exercise of NRC's authority and, in turn, alter the overall system of federal-state authority for the regulation of nuclear power. NRC is the only competent authority for making safety judgments, which include decisions about emergency planning, and should be encouraged to exercise this authority consistent with the nation's health and energy interests.

I will address five main topics in supporting my position:

- o NRC's proposed emergency preparedness rule change;
- o the existing federal-state relationship regarding radiological health and safety specifically and nuclear power generally;
- o the nature of nuclear power technology and the regulatory and practical consequences that flow from this;

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- o other areas of the law analogous to nuclear power where exclusive federal authority prevails; and
- o a response to the Federal Emergency Management Agency's written comments on the proposed emergency preparedness rule change and analysis of Senator Moynihan's proposed bill, Senate 40.

Opponents of NRC's rule have characterized the dispute as a question of states' rights. I believe this is inaccurate. This is, in fact, a dispute about national rights. It is a struggle between the parochial interests of a few and the national interests of many. Exclusive federal authority for radiological health and safety, which includes NRC decision-making in emergency planning issues, remains the most responsible system for achieving the national objective of the safe and effective utilization of nuclear power. I urge this committee not to undermine this.

I. NRC PROPOSED RULE

On March 6, 1987, the Nuclear Regulatory Commission (NRC) proposed to amend its rules in order to clarify its existing authority to grant full power operating licenses to nuclear power plants in the face of state and local government noncooperation in emergency planning. The issue is also applicable to plants now operating with full power licenses. The proposed rule change has been misrepresented by its opponents as a major change that undermines safety, is inconsistent with congressional intent, and usurps state authority. To the contrary, the NRC proposed rule is reasonable and proper for the following reasons:

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- o Adequate protection of the public health and safety remains the essential condition for any license to be issued and the proposed rule is consistent with the NRC's congressionally-mandated prerogative in making radiological safety decisions;
- o NRC's actions are fully consistent with the law and with Congress's often-repeated intent that noncooperation of state and local authorities in emergency planning should not by itself prevent plant licensing; and
- o The proposed rule would not in any way alter or diminish state or local prerogatives in emergency planning and would actually encourage state and local participation by making it clear that noncooperation can not be used as an excuse for opposing plant operation on other grounds.

SAFETY WILL NOT BE COMPROMISED

The proposed rule change in no way alters or diminishes the high standard of safety required before NRC will issue a license. The NRC states in the proposed rule:

[S]uch a change would not alter the Commission's paramount obligation to assure public health and safety. For each license application, the Commission would remain obligated to determine that there is reasonable assurance that the public health and safety will be adequately protected. If the Commission, for whatever reason, cannot find that the statutory standard has been met, then the license cannot be issued. (Ref. 2)

NRC has the authority and the expertise to make safety decisions and should exercise this prerogative.

It is necessary in any discussion about safety to place NRC's decision-making in the proper perspective. The statutory standard established in the Atomic Energy Act of 1954 requires prior to issuance of an operating license that the Commission determine that there is reasonable assurance that the public health and safety

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will be adequately protected. In practice, NRC's ultimate finding involves an integrated assessment of a wide-ranging, complex set of variables. For example, NRC assesses the adequacy of the design, quality of construction, the caliber of operator training and experience and overall management competence. Emergency preparedness is yet another of these elements taken into account.

Although every licensed plant must be found overall to meet an acceptable standard of safety, there is considerable room for variation between plants in individual areas. For example, there are differences between plants with respect to the core-melt probability, the reliability of on-site power sources, the expertise of operating personnel and general management experience and competence. These differences do not, however, preclude NRC from making a finding within its statutory authority and technical expertise that the overall safety of the plant is acceptable. The principle embodied in the proposed rule, then, namely that emergency preparedness standards can be applied with some flexibility, is the same tried and proven principle of regulation that NRC applies in the broad range of its licensing decisions. The fact is there have always been and will continue to be differences in the general emergency preparedness capabilities between plants. There are differences, for example, in evacuation times, emergency medical capabilities and emergency equipment availability. It is within the Commission's discretion to evaluate the significance of these differences in light of the overall risk to the public health and safety and make a final integrated finding.

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To the extent differences in emergency preparedness can be compensated for, then, there is nothing in theory that should prevent NRC from making a favorable finding. The adequacy of the plan becomes a factual determination. Whether compensation can be made by design modifications, improvements in operation of the plant or in recognition of already existing peculiarities of a given plant and its surroundings, such as an especially safe design, favorable geography or prevailing weather conditions, or existing emergency preparedness capabilities in the surrounding communities, should be left to the sound discretion of the NRC.

In any event, the criticism that the proposed rule represents an a priori reduction in safety fails to reflect the inherent nature of NRC's integrated assessment of overall plant safety and NRC's expressed intent in the proposed rule to maintain the statutory standard of protection.

As a matter of interest, the NRC's proposal has been endorsed by various important media. The Wall Street Journal, The New York Times, and The Hartford Courant, for example, have printed editorials supporting the NRC position. (Ref. 3)

THE PROPOSED RULE IS CONSISTENT WITH THE LAW AND CONGRESSIONAL INTENT

The present emergency planning process was developed in response to the accident at the Three Mile Island facility in March of 1979. Congress required the NRC to establish, by rule, standards for radiological emergency response plans. Importantly, Congress at the time recognized the possibility that state or local authorities

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might refuse to cooperate and sought to avoid penalizing an applicant by authorizing NRC to issue an operating license so long as the NRC determines that an alternative plan, such as a plan submitted by the applicant, provides reasonable assurance that the public health and safety are not endangered.

Congress also clearly intended to accord NRC responsibility in fashioning the guidelines for emergency response plans. In the words of one of the conferees:

We are not setting up the guidelines here. We are saying to the NRC, "You set up the guidelines for what are adequate emergency plans." Indeed, we are not aggrandizing that responsibility for ourself. Rather, we are giving a mandate to the NRC to exercise this responsibility.
(Ref. 4)

The agreement fashioned by the conferees and enacted into law has been reaffirmed on numerous occasions by Congress since 1980. The NRC Authorization Acts of 1982-1983 and 1984, 1985 and the Department of Housing and Urban Development Independent Agencies Appropriations Bills of 1984, 1985, and 1986, all reassert Congress' intent that lack of state and local cooperation should not by itself prevent NRC from issuing an operating license. (Ref. 5)

NRC's existing regulations reflect Congress' intent. 10 CFR 50.47(c) (1), for example, gives NRC flexibility in deciding whether noncompliance with emergency planning requirements, such as state and local noncooperation, should or should not prevent plant licensing. (Ref. 6) A 1986 federal court decision confirmed the preemption by NRC regulation of state or local government attempts

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to obstruct radiological emergency planning. (Ref. 7) Also in 1986, the NRC ruled in a licensing proceeding that lack of state and local cooperation by itself would not preclude issuance of an operating license. The NRC based its finding in part on the presumption that authorities would respond in an actual emergency (referred to as the "realism" argument). (Ref. 8)

Thus, it is clear the Congress intended to give NRC flexibility to apply its expert judgement in emergency planning requirements. The proposed rule represents a clarification of existing authority by establishing criteria the NRC will use in evaluating the adequacy of emergency response plans in the very narrow circumstance of a lack of formal state or local cooperation. (It would seem that in real life the duly responsible state and local personnel will carry out their duties as in the case of other emergencies.)

THE PROPOSED RULE CHANGE PRESERVES AND ENCOURAGES STATE AND LOCAL GOVERNMENT PARTICIPATION

The proposed rule change is not intended to displace existing state and local governments role in emergency planning. State and local authorities retain their rights to participate in emergency planning and in NRC proceedings to assure the plant can be operated safely. If they choose not to participate in emergency planning, state and local authorities have the right to contest the adequacy of the utility's off-site emergency plan. The proposed rule clarifies, however, that an adequate plan may be feasible,

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although more difficult, without their cooperation. Indirectly, this proposed rule may serve as a further incentive for local authorities to participate in planning with the utilities in the interests of the public which they both serve.

II. FEDERAL-STATE ROLES IN NUCLEAR POWER REGULATION

The Atomic Energy Act of 1954 (the Act) was the culmination of efforts to permit and promote greater involvement by the private sector in the development of nuclear technology for peaceful purposes. The Act's predecessor, the Atomic Energy Act of 1946, had vested exclusive authority in the government for the production of fissionable material for weapons and for developing and manufacturing weapons to meet military needs. The 1954 Act ended the federal government's monopoly in nuclear technology and encouraged participation by private industry in development of the new technology.

While the Act made nuclear technology available to the private industry, it made no explicit delegations to the states for radiological safety. The Atomic Energy Commission (and its successor, the NRC) retained exclusive authority for the regulation of nuclear energy technology including the resolution of health and safety issues. The states, by implication, retained their traditional authority for public health and safety in those areas not included under the Act, such as radiation from naturally-occurring radium or uranium and accelerator-produced isotopes, and in economic regulation.

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There were two main reasons cited in deliberations about the 1954 Act, as well as in discussions related to the amendments in 1959 and 1965, which Congress relied on in establishing and maintaining exclusive federal authority for radiological health and safety. First, Congress was persuaded the states did not have the expertise necessary for effective regulation of nuclear energy. Secondly, it was generally perceived that separate state regulation would in all likelihood create a maze of conflicting or restrictive measures that would effectively prevent full development of the technology. This rationale was especially evident in the 1959 amendments to the Act, which authorized the federal government to transfer portions of its authority to the states for source, by-product, and special nuclear materials in non-fissionable quantities, but which reaffirmed the need for federal authority for power production and materials safeguards. On each occasion when the opportunity or need has arisen, Congress has reaffirmed its belief that the national interest is best served by the retention of exclusive federal authority for radiological health and safety of nuclear power.

A line of U.S. Supreme Court cases further clarifies federal authority. The Court has repeatedly upheld the exclusivity of the federal government's authority for radiological health and safety. The states may act only so long as their actions do not constitute radiological safety regulation or where their acts do not create an irreconcilable conflict with the federal standards. In

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Pacific Gas and Electric Co. v. State Energy Resources Conservation & Development Commission, 460 U.S. 190 (1983), for example, the Supreme Court ruled that state safety regulation is pre-empted by federal law:

At the outset, we emphasize that the [California] statute does not seek to regulate the construction or operation of a nuclear powerplant. It would be clearly impermissible for California to attempt to do so, for such regulation, even if enacted out of non-safety concerns, would nevertheless directly conflict with the NRC's exclusive authority over plant construction and operation. Respondents appear to concede as much. Respondents do broadly argue, however, that although safety regulation of nuclear plants by states is forbidden, a state may completely prohibit new construction until its safety concerns are satisfied by the federal government. We reject this line of reasoning. State safety regulation is not preempted only when it conflicts with federal law. Rather, the federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the states.

Id. at 212.

This affirmed a line of cases, including Northern States Power Co. v. Minnesota, 447 F. 2d 1143 (8th Cir. 1971), and Illinois v. Kerr McGee Chemical Corporation, 677 F. 2d 571 (7th Cir. 1982), which found exclusive federal authority for construction and operation of nuclear power plants and associated safety regulation.

While the federal government exercises exclusive authority over safety issues, the states nevertheless play a central role in the broader context of nuclear power. States exercise their traditional authority over the need for additional generating capacity, the type of generating facilities to be licensed, land use, rate-

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making and the like. Pacific Gas and Electric, supra. States may regulate those activities permitted under the "Agreement State" program, such as regulation of radiographers and radiopharmaceutical manufacturers. States may also enforce traditional remedies under state law, such as even punitive damages, for injuries resulting from a nuclear incident. Silkwood v. Kerr McGee, 464 U.S. 238 (1984). Again, though, state authority stops where federal authority begins in the area of safety.

III. NATURE OF NUCLEAR POWER TECHNOLOGY AND REGULATORY/PRACTICAL CONSEQUENCES

NATURE AND PURPOSES OF NUCLEAR POWER TECHNOLOGY

Nuclear power regulation is based on the nature of the thing itself, namely, nuclear physics and nuclear power technology. The attributes of nuclear power technology were such during the 1950s that it was deemed in the national interest for the federal government to retain exclusive authority for its safe use and operation. These underlying attributes remain the same and, in conjunction with the economic and political realities of today, make it imperative that the federal government retain exclusive authority.

Nuclear power technology has the following basic attributes, among others:

- o Potential Risk: The potential consequences from misuse or misapplication of the technology must be care-

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fully evaluated. This holds both for the public health and safety as well from a security and safeguards standpoint due to either accidental or intentional diversion of fissionable materials.

- o Complicated Science and Technology: Considerable progress has been made in understanding the underlying science of nuclear physics and the application of nuclear technology, but the technology continues to evolve. Where uncertainties exist they are compensated for by design and operating conservatisms, but these conservatisms must be carefully balanced with the total nuclear system.
- o Nuclear Power Technology Is Production-Oriented: The purpose of nuclear power technology is to produce electrical power. In this sense, the primary purpose of exclusive federal authority is not only public health and safety but also safe utilization of nuclear power as a national energy source.
- o Vital to Secure, Reliable Source of Energy for the Nation: There are currently over 100 operating reactors in the United States generating nearly 17 percent of the nation's electric supply. By 1995, this is projected to rise to some 20 percent even without any new plant orders. In 1986, U.S. nuclear

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generation totalled 414 billion kilowatt hours (kwh), representing some 700 million barrels of oil a year that need not be imported and representing costs for oil of about \$10.5 billion.

- o Essentially Interstate in Nature: The nation's electrical power supply is essentially interstate in nature. A nuclear power plant provides electricity on a multi-state basis. Decisions concerning a plant can and do affect the economic interests of citizens throughout the nation. Also, the nature of the technology is such that the construction of a plant requires the efforts of industries located throughout the nation.
- o Power Plants Are Large and Capital Intensive: Today, most of the nuclear power plants are considerably larger than all but the largest fossil and hydroelectric plants. This represents the advantage of economies of scale and maximizes the benefits of available sites. This, however, also requires large capital investments and long-term investment and construction planning.

REGULATORY AND PRACTICAL CONSEQUENCES

There are a number of important regulatory and practical consequences that flow from the nature of the technology:

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- o Uniform, Single Body of Regulations: A complicated technology with remote but serious risks, such as nuclear power, should not be subjected to the vagaries of differing regulations throughout the country. Inconsistent or multiple regulation would have a negative impact on the safety of nuclear power plants. Imposition of additional state regulations would complicate rather than simplify reactor construction and operation. While the states exercise economic regulation of electric utilities, this should not be combined with safety regulation.

State safety regulation could further complicate the manufacturing of nuclear power plant components and the provision of services and thereby unnecessarily raise the cost of power. Additional state regulation would also further increase the uncertainty associated with investing in nuclear power construction and thereby further decrease the investment community's willingness to fund nuclear power construction.

- o Centralized Control and Enforcement: It has been suggested by some that states should be granted additional authority for the enforcement of existing federal regulations. This argument quickly fails

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when one considers the present system of enforcement applied by the NRC. Even within a single, centralized organization, there are differences that arise in interpretation and application of regulatory requirements by the five NRC Regions. This has produced on occasion marked differences between Regions in enforcement policy and in the time and expense of licensing a nuclear power plant. These differences would increase both in number and degree with state regulation. State regulation and/or enforcement would also greatly increase the complexity and difficulty to monitor and assess generic trends, an activity widely acknowledged as crucial to plant safety.

- o Standardization: It is becoming widely recognized that in order for the United States to realize more fully the benefits of nuclear power, it should increase the standardization of new plants. Countries such as France and Japan are benefitting from programs that minimize the variations between models and thereby realize advantages in design, manufacturing, construction, and operation. These greater efficiencies in turn are translated into greater plant reliability and lower kilowatt costs. State regulation, in the form of state safety

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standards or enforcement authority, would run counter to this desired trend and would largely nullify the NRC's efforts at standardization.

- o Decisions Made for Safety Reasons, Not Political Reasons: It is instructive to remember that the Nuclear Regulatory Commission was created as an independent agency for the very reason that Congress and the American public wanted decisions about nuclear power health and safety to be based upon sound technical and engineering judgments in light of the risk to the public health and safety. We believe that aim to be equally valid today, and that it should not be undermined by legislation which would curb the NRC's exercise of its expert safety judgment.
- o Public Support: The nature of nuclear power technology renders it peculiarly dependent upon support from the American public. The vast majority of technologies and products in the U.S. economy depend solely on their cost-competitiveness. Nuclear power must survive not only on its competitiveness but on the general public attitude about the perceived risks and advantages of the technology. Congress must decide when contemplating any change to the existing

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regulatory structure whether the change would tend to increase or reduce the support of the American public. Proponents of increased state authority would argue that public support would increase by giving the states a greater role in regulation. In the first instance, the general support of nuclear power hinges in large measure on the credibility of the regulators. In the long run, this credibility would suffer from the additional diffusion of authority and expertise that would accompany increased state roles. To the extent state regulation would also add to the cost and complexity of nuclear power, this would also reduce public support.

IV. APPLICABILITY OF OTHER FEDERAL-STATE RELATIONSHIPS

I recognize that in considering the issue of emergency planning, and the broader issue of federal-state authority, Congress will be mindful of the legislative and regulatory systems presently in place in other areas. It is my opinion that when Congress makes this comparison, it will find further evidence that the present system for radiological health and safety is the proper one.

For example, the federal government retains exclusive authority over the development of the outer continental shelf through the Outer Continental Shelf Lands Act. Federal law governs the leasing of tracts for oil, gas and other mineral development.

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The twin goals of the Outer Continental Shelf Lands Act are to promote orderly development of this invaluable natural resource in an environmentally sound manner. Only exclusive regulation by the federal government can provide the necessary balance to do so.

The federal government also retains exclusive authority under the Federal Aviation Act of 1958 for matters related to the use of airspace and air traffic, including the authority to promulgate standards governing the design, construction, performance, inspection, and servicing of aircraft. Aviation, like nuclear power, involves complex risks and a complicated technology. It has been the consensus within Congress and the American public since the early days of aviation that the states generally lack the expertise necessary for the safe and efficient utilization of aviation technology. Moreover, because of the inherently interstate nature of aviation, and the need for national consistency, it has been consistent national policy that states should not be permitted to impose restrictions or burdens on air traffic or air commerce.

A similar national interest is reflected in the terms of the Federal Communications Act, which establishes exclusive federal authority over the electromagnetic band, including the licensing of operators and the regulation of frequencies. Like nuclear power and aviation, it is recognized that electronic communications are non-local in nature and are of such vital, long-term importance to the nation as a whole that they should not be subject to the uncertainties and vagaries of local or state regulation. Finally, in the

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area of space exploration and development, the National Aeronautics and Space Administration typifies the need for a centralized authority in the development and utilization of a high-risk, complicated technology that serves vital national needs.

V. FEMA COMMENTS ON NRC PROPOSED RULE AND SENATE BILL 40

The Federal Emergency Management Agency (FEMA) has submitted written comments on NRC's proposed rule change. Before addressing these specific comments, it should be said that our industry has worked closely with FEMA with regard to many emergency preparedness plans. We respect and appreciate the assistance provided by FEMA personnel in many instances. Also, we should express appreciation for the splendid work and cooperation by many state and local agencies. Our own experience over many years in the two Carolinas bears testimony to the value of this. Our industry feels, however, that it is important to respond to the FEMA statements about the proposed rule and to comment further on the subject of local and state participation.

FEMA makes what appears to be four main points:

- o the proposed rule will increase risk and reduce protection to the public;
- o state and local cooperation is necessary in planning and testing, and an ad hoc response will likely not work;
- o the incentive for state and local authorities to cooperate will be reduced; and
- o the existing emergency preparedness criteria can not be met under the proposed rule and FEMA, therefore, can not bring its evaluation process to a conclusion.

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With respect to the expressed concern by FEMA that the proposed rule would no longer require a showing of reasonable assurance that adequate measures to protect the public can be taken in the event of an emergency (thus, increase risk to the public), we believe that both the expressed intent of the Commission in the proposed rule and the inherent nature of NRC's mandatory, integrated assessment of overall plant safety demonstrate clearly that such reasonable assurance of public safety would still most definitely be required. As the NRC has stated, although full official state and local cooperation may be desirable -- and, in fact, may be the optimum -- there may, in certain cases, be other means to demonstrate the effective protection of public health and safety. The proposed rule change would not alter the statutory standard of protection, but it would reaffirm the principle of flexibility necessary for NRC to make reasoned judgments about a plant's licensability.

FEMA's comment letter seems to permit the inference that anything different than its current program, which involves state and local cooperation in planning and testing, would be by definition "inadequate." One would hope that such inference is not intended. Are there, for example, universal principles of emergency preparedness such that full cooperation of state and local officials in planning and testing is absolutely indispensable? Has consideration been given to practices in other countries where Federal authorities, rather than local or state officials, have

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exclusive responsibility for emergency preparedness and where, in some instances, emergency zones are smaller than in the U.S.? Has FEMA considered, in consultation with NRC, the broader safety variables NRC must take into account in its final finding and the impact these variables may have on FEMA's evaluation?

FEMA comments that an ad hoc response by state and local officials could be ineffective in that it does not assure the full range of necessary actions will be taken and makes it likely that any response will be uncoordinated. This relates to the premise in NRC's proposed rule that state and local authorities are likely to respond in an actual emergency regardless of their noncooperation in planning and testing. I would agree, as I believe NRC would as well, that ad hoc responses are not the optimum. It is important to note, however, that the responses contemplated in the proposed rule are not ad hoc in the same sense as those anticipated in the pre-TMI era. The responses under the proposed rule will have been anticipated and planned for in detailed utility off-site plans and implemented in an actual emergency with the full support of the utility; a far cry from a pure ad hoc response. The fact that these plans would not be planned or exercised the same as other plans with full cooperation, however, does not mean that they cannot be adequate to provide reasonable protection for the public. Non-radiological emergencies occur in this country frequently, and responses to them are almost entirely ad hoc. Yet, whether in response to a flood or a derailed train carrying toxic chemicals,

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state and local officials have responded promptly and in a generally effective manner without the type of detailed and extensive prior planning involving all state and local authorities, which is the norm under the present NRC rule. Dr. Richard Wilson, a noted nuclear physicist who has visited Russia and testified on this subject before Congress, has commented that even at Chernobyl the experience there attests to the inherent willingness, capability, vigor and courage of knowledgeable technical authorities and local personnel to respond in a very effective way to the emergency needs of the public on an "ad hoc" basis. Certainly, in this country our own experiences on many, many occasions have clearly demonstrated an equal or greater commitment to public health and safety and the considerable resourcefulness of all authorities involved.

FEMA comments express the concern that the proposed rule will reduce the incentive for state and local governments to cooperate. We believe, however, that the experiences in our country show that state and local authorities are highly motivated by their interest in protecting the public health and safety and have given their full cooperation as needed in ad hoc as well as "planned and tested" situations. We do not believe the proposed rule will impact these responsible authorities in a negative way. At the same time, for the very few state and local authorities that may use emergency preparedness as a pretense for opposing plant operations on non-safety grounds, the proposed rule would send a clear message that there is no advantage to be gained by nonparticipation. To the

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extent the proposed rule acts as an incentive for their full cooperation, this should benefit the public health and safety.

Lastly, the FEMA comments indicate that lack of cooperation will mean that many of the evaluation criteria in NUREG-0654/FEMA Rep 1, Rev. 1, can not be satisfied under the proposed rule. As a consequence, the FEMA evaluation process may not be brought to a conclusion and FEMA cannot offer NRC the findings it requests, presumably either a positive or negative finding. Here we believe FEMA to be correct as to the current guidelines. Many of the criteria in NUREG-0654 can not be satisfied to the letter without state and local cooperation. The response to this, however, should not be to say that the desired rule change should not be taken, but rather that the guidelines need to be re-evaluated and changed if necessary to fit the new rule. It is always the case that the guidelines should follow the regulations, and that where regulations change so should the guidelines. Granted, FEMA's evaluative process may be complicated by the proposed rule, and it is unfortunate that an abuse of the present regulations in a very few situations leads to this development. When faced, however, with vetoes by state and local governments of the implementation of important Federal policy, such additional complexities and work may be unavoidable.

On a related note, there is presently under consideration Senate Bill 40 which would mandate a FEMA finding relative to the

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adequacy of off-site emergency preparedness plans prior to NRC's issuance of an operating license. With all due respect, I do not believe the bill would help in any material way with the ongoing problem of state vetoes. As is evident from FEMA's comments, FEMA is presently not disposed to making any finding, positive or negative, relative to the adequacy of an emergency plan that does not incorporate state and local cooperation. Further, Senate Bill 40 does not give any guidance as to whether or how FEMA and NRC can approach the problem of state vetoes. As such, we believe it would legislate the status quo firmly in place and establish state veto authority, which Congress has consistently repudiated. In turn, such legislation would greatly complicate future efforts to resolve the problem of state vetoes and would hamper the NRC in exercising its current statutory authority for making integrated safety assessments. In this sense, it would also be inconsistent with the Congressional intent of exclusive federal authority for radiological safety. We believe the Bill should not be enacted.

CONCLUSION

In conclusion, let me again urge this committee to understand and support the NRC's proposed emergency planning rule change. The NRC is acting consistent with the law and with Congress' and this Committee's often-expressed intent. NRC should be allowed to go forward in exercising its Congressionally-established authority for safety decisions without premature, unwise legislative interference.

Statement of
W. Taylor Reveley, III
on behalf of the
Long Island Lighting Company
before the
Senate Committee on Environment and Public Works
Subcommittee on Nuclear Regulation
May 7, 1987

I.

INTRODUCTION

The Long Island Lighting Company (LILCO) appreciates very much the opportunity to participate in this hearing. LILCO's interest in the subject is well known.

My name is Taylor Reveley. I am managing partner of Hunton & Williams and one of LILCO's lawyers. I have been working on Shoreham since 1970.

Let me begin with brief comments on, first, what the NRC's proposed emergency planning rule^{1/} does not do and, second, what it does do. Aspects of these comments will then be elaborated.

At the threshold, LILCO believes the proposal should be adopted. It is in the national interest.

II.

A. WHAT THE PROPOSED RULE DOES NOT DO

1. The proposed rule does not help a nuclear plant that is unsafe because of flaws in its design, construction, components, equipment, staffing or procedures. Unless and until federal regulators find a nuclear plant safe on those scores, there is

^{1/} Licensing of Nuclear Power Plants Where State and/or Local Governments Decline to Cooperate in Offsite Emergency Planning, 52 Fed. Reg. 6980 (Mar. 6, 1987).

nothing more to be said. After the most exhaustive, protracted scrutiny ever given any nuclear facility, Shoreham has been found safe in these regards.^{2/}

2. The proposed rule does not help a nuclear plant for which emergency planning is inherently infeasible because of background conditions such as location, topography, weather, population, road systems and the like. Based on an extensive record, the NRC has found that background conditions on Long Island do not preclude effective emergency planning for Shoreham. To the contrary, emergency planning for Shoreham has been found to be quite feasible by federal regulators.^{3/}

3. Nor does the proposed rule help a nuclear plant unless its failure to meet every jot and tittle of existing NRC emergency planning requirements (1) can be remedied, or adequately compensated for, by reasonable state or local governmental cooperation; (2) the applicant has made a good faith and consistent effort to obtain the cooperation of the necessary governments; (3) the applicant's offsite emergency plan includes effective measures to compensate for the lack of cooperation, measures that are reasonable and achievable under the circumstances and that take into account a likely state or local response to an actual emergency; and (4) the applicant has provided copies of the offsite plan to all pertinent governments and has assured them that it stands ready to cooperate with them at any time.

All of these requirements are met at Shoreham.^{4/} Let me illustrate briefly. First, LILCO has compensated for the refusal of Suffolk County and New York State to participate in emergency preparedness for Shoreham by developing its own plan and its own Local Emergency Response Organization (LERO), some 2,100 members strong, to implement it. That plan has been found by the NRC to be adequate in almost all

^{2/} See Part III.A below.

^{3/} See Part III.B below.

^{4/} See Part III.C below.

principal respects; and the only remaining problem areas are ones that could be remedied speedily with state or local cooperation. For instance, the principal outstanding issue concerning implementation of the plan is the adequacy of the three LILCO facilities designated as reception centers for potential evacuees from an accident at Shoreham. LILCO believes that its three facilities are adequate (and expects to prove this in reopened hearings scheduled to begin in June). However, there are other reception facilities that are more accessible, and arguably preferable, and which LILCO has proposed to use but has had to withdraw from its plan because they are owned by the governments of New York State or Suffolk or Nassau Counties. It is perfectly reasonable to suppose that these facilities would not be withheld by public officials in the event of a real emergency.

Second, LILCO has made repeated diligent efforts to enlist the support of New York State and Suffolk County in its emergency planning efforts. In 1981 it had a contract with the County to develop an offsite plan for Shoreham, which the County renounced only after it was well into performance. Ever since, LILCO has made clear that it would cooperate with the State and County governments in emergency planning at Shoreham under virtually any conditions.

Third, LILCO's entire plan is an extended compensating action. As noted above, it has been found adequate in all respects other than ones which can easily be remedied by governmental participation. It has also been tailored to enhance the effectiveness of such participation. It was prepared from the original plan developed by Suffolk County in 1981-82, so as to preserve maximum continuity. It also employs standard forms, formats and usages found in other New York State plans where the State government cooperates, again to maximize familiarity with the plan. Finally, LILCO's emergency planning personnel are familiar with practices followed in other New York State plans from participation in and observation of exercises and drills at other plants in the state.

Finally, LILCO makes literally dozens of copies of its offsite radiological emergency plan -- all five volumes of it -- available to New York State and Suffolk County, which they currently use in the Shoreham litigation. Both the State and County have numerous permanent employees who have become intimately familiar with the plan in their roles as expert witnesses against it. With the help LILCO would provide them during any actual emergency, they would be able to implement the plan effectively with virtually no notice. LILCO has also made repeatedly clear that it is willing to modify the plan in any respect that seems advisable to state and local officials, so long as the modification is consistent with NRC regulations.

4. To restate what the proposed NRC rule does not do, it does not help unless the plant itself is safe, its background conditions permit effective emergency planning, the only remaining obstacle to that planning is noncooperation by state or local governments, and adequate compensating measures exist to cope with that noncooperation. The proposed rule, in short, does not significantly affect the level of protection guaranteed by NRC regulations. Claims that the proposal threatens the public health and safety are simply wrong.

B. WHAT THE PROPOSED RULE DOES DO

1. It recognizes and preserves the NRC's basic authority, conferred under the Atomic Energy Act and recognized by courts and Congress ever since, to be the final arbiter of questions regarding radiological health and safety. At Shoreham, local and state officials argue that adequate offsite emergency preparedness is impossible because of population, road networks and the like; these officials also insist that the offsite emergency plan and organization established for Shoreham by LILCO are deficient in numerous ways. The officials reject contrary findings by federal regulators and insist that state and local conclusions about radiological health and safety must take precedence over contrary federal conclusions. If this happens, the United States will

move to a regime in which each state can set its own radiological health and safety standards, and in which states and localities can easily prevent the operation of any nuclear plant merely by refusing to participate further in emergency planning for it.

It bears remembering that the Atomic Energy Act of 1954 has always embodied, and been acknowledged by every court to have construed it to embody, the principle of federal preemption of radiological health and safety issues. The only two federal court decisions that concern both federal preemption and emergency planning -- each of them involving Shoreham -- have concluded that emergency planning falls within the federal government's bailiwick as part of the regulation of radiological health and safety, and thus outside the residual scope of "police powers" left to the states.

In the first of these cases, Committee for an Orderly Energy Policy v. County of Suffolk, 604 F. Supp. 1084 (E.D.N.Y. 1985), aff'd ___ F.2d ___ (2d. Cir. 1987), the primary question was whether Suffolk County was within its rights under the Atomic Energy Act in refusing to participate in emergency planning for Shoreham. Judge Altimari held that it was, and that the Act did not compel it to participate. But he went on to state:

Certainly [Suffolk] County may not require LILCO to comply with the County's requirements for a satisfactory RERP [Radiological Emergency Response Plan]; whether LILCO's RERP is sufficient is a question for the NRC, and the County may not override the NRC's judgment. . . . The County has not and cannot supersede the judgment of the NRC on whether or not a license should issue for Shoreham. Once the NRC makes that decision the County's opinion on LILCO's RERP will become academic.

604 F. Supp. at 1094-95.

Judge Altimari also recognized that Congress had provided an alternative mechanism for offsite emergency planning in the event states and localities refused to participate, namely, utility-sponsored plans:

. . . Congress considered the possibility that a state or local government or both would fail to participate in emergency planning. Rather than require participation, Congress provided that the utility could provide a plan.

604 F. Supp. at 1096.

Even more directly on point, slightly over a year ago a U.S. District Court was called upon to decide the legality of a criminal ordinance that Suffolk County had enacted over the 1985 Christmas holiday in an attempt to block Shoreham's offsite emergency planning exercise scheduled for February 13, 1986. Judge Wexler enjoined enforcement of the ordinance, Local Law 2-86, holding that emergency planning for nuclear power plants was "well within the sphere of authority reserved for the federal government by Congress," and that the ordinance's attempt to veto an exercise was an unconstitutional invasion of the federal domain. Long Island Lighting Co. v. County of Suffolk, 628 F. Supp. 654, 664 (E.D.N.Y. 1986). Judge Wexler's decision, which was never appealed, is worth quoting at some length:

Emergency planning for radiological hazards in the event of a nuclear power plant accident, as the legislative history demonstrates, is well within the sphere of authority reserved for the federal government by Congress. Federal law encourages but does not require the states and localities to participate in emergency planning. Congress requires that the NRC, in conjunction with FEMA, will scrutinize any emergency evacuation plan rigorously, regardless of whether it is submitted by the state or by the utility. The NRC has therefore established procedures that will enable it to evaluate a RERP, and off-site testing has been made part of those procedures. . . .

. . . .

[B]y failing to articulate a non-safety rationale, Suffolk County impermissibly intruded into a federally preempted area when it enacted Local Law 2-86. . . .

After an examination of the history of Local Law 2-86, the Court concludes that Local Law 2-86 does not proffer an economic rationale for its enactment. Nowhere in either Resolution 1253-1985 or the February 7 resolution of disapproval does the County speak of economic concerns. Instead, the legislation refers broadly to "police powers" that are exercised by the County in both natural and man-made emergencies. The County's stated concern is that LILCO, a private entity, will usurp the County's police power by "simulating" or "performing" County functions during the test of LILCO's emergency plan. The County is on record, however, since Resolution 111-1983, as opposing the opening of the Shoreham facility on the grounds that no emergency

evacuation plan is safe for Suffolk County. Indeed, the County's refusal to participate in the creation of a RERP was based on the County's independent determination that Shoreham was not safe. The County's attempt to stop the February 13 exercise on the grounds that LILCO will be usurping the County's police powers is of a piece with the County's 1983 determination that Shoreham should be abandoned as unsafe. Because the County passed Local Law 2-86 in an attempt to continue its opposition to the Shoreham facility on the basis of a perceived radiological hazard, this Court concludes that Suffolk County has impermissibly intruded into a sphere of authority reserved exclusively to the federal government by Congress.

628 F. Supp. at 664-66. The NRC's proposed rule is entirely consistent with this judicial history.

2. The proposed rule, finally, prevents abusive use of federal regulation as a means by which local and state officials can, in effect, condemn a nuclear plant without the expropriating governments having to pay for the facility. Shoreham was built with the strong support of local and state governments, including their active and willing cooperation in emergency planning. Only after the plant was physically complete -- and only after billions of dollars had irrevocably been committed to it -- did local and state officials suddenly reject it.^{5/} Governments may change their minds about whether to allow a particular power plant to operate within their jurisdiction if they are willing to follow constitutionally mandated condemnation procedures. But governments may not (1) insist that the taking of certain actions wholly within their control is essential to the federal licensing of a facility, (2) systematically refuse to take these actions, and then (3), precisely because these actions have not been taken, insist that the facility not operate as a matter of federal law -- all so that the facility can be condemned by state and local decision without any need for the state and locality to pay for it. That offends fair play, public policy and the Constitution. The proposed rule will prevent an end run of the condemnation process by abusive use of NRC regulation.

^{5/} See Part III.D below.

III.

A. SHOREHAM HAS BEEN EXHAUSTIVELY
SCRUTINIZED AND ADJUDGED SAFE1. Overview

The NRC docketed Shoreham's operating license application early in 1976. Litigation on the application began that April. Nothing else in NRC jurisprudence approaches the scope and depth of the Shoreham litigation. During the ensuing 11 years, over 20 NRC Licensing Board judges have dealt with one or another of its facets. These judges have formed six Licensing Boards, focusing on (1) the extensive prehearing and environmental matters at issue from 1976-81, (2) hundreds of health and safety issues, including diesel generator matters and onsite emergency planning, (3) plant security, (4) low power, (5) offsite emergency planning and (6) the February 1986 emergency response exercise.

In addition to the work of these Licensing Boards, the NRC Appeal Board and, to date, eight NRC Commissioners have handed down numerous appellate rulings on Shoreham's operation. From the beginning of the OL proceeding in April 1976 through the latest available edition of "Nuclear Regulatory Commission Issuances" (September 1986), there have been 55 reported decisions -- a remarkable profusion -- concerning Shoreham, as well as many more unpublished rulings. In typed form, these decisions and rulings now exceed 5,300 pages.

Over the last decade, millions of pages of documents have been produced during Shoreham discovery. More than 250 people have been deposed at locations across the country. There have been almost 300 days of prehearing conferences and hearings, recorded in over 53,000 pages of transcript so far. To date, more than 650 witnesses have testified (counting as a witness each person who testified on a particular issue; the same person may have testified on more than one contention). Along the way, a large number of issues have also been settled.

In tandem with this NRC litigation, related matters have been ongoing in the District of Columbia and Second Circuit Courts of Appeals, before three federal district courts and at all levels of the New York State courts.

In short, Shoreham's fitness to operate has been examined in indescribable detail by a legion of judges. The plant has been subjected not only to prolonged, intense licensing hearings, but also to exhaustive NRC and independent inspections. The process is now well into its second decade. The scrutiny has consistently confirmed the safety of Shoreham's design and the adequacy of its construction. As a result, LILCO holds Facility Operating License NPF-36 authorizing the operation of Shoreham at or below 5% power for purposes of low power testing.^{6/} The plant has been adjudged safe and ready for full power operation^{7/} with the exception of certain emergency planning issues

^{6/} NPF-36 was issued on July 3, 1985. Since then, LILCO has successfully completed low power testing beyond that normally performed by new plants. Over a period of almost two years, low power testing at Shoreham has included the normal 5% tests described in the Shoreham FSAR, as well as testing beyond that required at 5% power. Also completed have been a main turbine roll and synchronization of the plant to LILCO's power grid.

^{7/} After more than two years of specifying contentions, discovery, motions and affidavits, on August 4, 1978, the Shoreham Licensing Board ruled that "there are no remaining environmental issues to be considered in this case." Memorandum and Order Relative to Board Concerns Regarding Fish-Return System and Chlorine Discharge 6 (1978). Subsequent efforts to reopen the environmental litigation failed. E.g., Order Ruling on Petition of Shoreham Opponents Coalition 22-24 (Mar. 5, 1980); cf. Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-85-12, 21 NRC 1587 (1985).

On April 10, 1985, after nine years of litigation, including massive discovery, extensive settling of issues, plus 116 days of prehearing conferences and evidentiary proceedings, final NRC action was given in LILCO's favor on (1) hundreds of health and safety issues, such as those concerning quality assurance, and (2) onsite emergency planning matters. See, e.g., Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-82-115, 16 NRC 1923 (1982); LBP-83-57, 18 NRC 445 (1983); ALAB-788, 20 NRC 1102 (1984); LBP-84-53, 20 NRC 1531 (1984); letter from NRC Secretary to Suffolk County counsel, Apr. 18, 1985 (by 5-0 vote, Commission declined to review ALAB-788, thus making it final agency action on Apr. 10, 1985). Not covered in the litigation just described were (1) diesel generator issues and (2) offsite emergency planning matters.

On February 24, 1986, after three years of litigation, including sweeping discov-

(footnote continued)

caused by the refusal of Suffolk County and New York State to cooperate with LILCO in offsite emergency planning.

2. More Detail

It is startling, but instructive, to note that LILCO applied for a permit to construct Shoreham almost two decades ago. Thereafter followed the most extensive construction permit hearings in the history of nuclear licensing,^{8/} culminating in favorable Licensing Board (1972) and Appeal Board (1973) decisions.

Twelve years ago, in late 1975, LILCO submitted its application for an operating license for Shoreham. The operating license hearings were again record-setters -- the most exhaustive and protracted in NRC history. Again the results affirmed Shoreham's safety. But simply to state this conclusion does not adequately convey a proper sense of its significance or the high degree of confidence it warrants. The following operating license statistics paint a vivid picture of a proceeding of unprecedented thoroughness and extent:

(continued from previous page)

ery and 47 days of prehearing conferences and evidentiary proceedings, final NRC action was given in LILCO's favor on diesel generator issues. See, e.g., Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-18, 21 NRC 1637 (1985); ALAB-824, 22 NRC 776 (1985); Memorandum from NRC Secretary to Shoreham Licensing Board and Parties, Feb. 28, 1986 (Commission declined to review ALAB-824, thus making it final agency action on Feb. 24, 1986).

Not included above are rulings on plant security; pertinent issues were ultimately settled in a manner wholly compatible with Shoreham's operation. Only touched in passing above are decisions on low power issues, in particular those issues concerning low power operation without licensed diesel generators of customary nature; again, the results of that litigation were in Shoreham's favor. Most important, not covered above are the now immense proceedings on offsite emergency planning. In terms of discovery (staggering in its scope), hearings (soon to exceed 100 days) and NRC decisions (both on the facts and law), few if any other subjects have received as minute and intense scrutiny.

^{8/} There were 70 days of AEC hearings, which began on September 21, 1970 and continued episodically for 2½ years, ending on January 19, 1973.

Prefiled written testimony	21,855 pages
Number of witnesses who have already testified or who are now on the stand	651 witnesses ^{9/}
Number of exhibits	815 exhibits ^{10/}
Days of prehearing conferences and hearings	290 days
Number of hearing transcript pages (not including deposition pages)	53,502 pages
Pages of findings of fact and conclusions of law	7,517 pages
Pages of written rulings and decisions by NRC judges	5,340 pages
Number of people deposed during discovery	252 persons

By no stretch of the imagination can it be said that Shoreham's safety and adequacy have been adjudicated on an insufficient investigation and record. Few proceedings of any kind, in any context, involve, as has Shoreham, more than 50,000 pages of hearing transcript.

Quite apart from the licensing hearings, the plant has been subjected to repeated and searching inspections by the NRC, by LILCO and by independent bodies. Again, the numbers are telling. Since the commencement of construction, NRC representatives have conducted more than 342 inspections at Shoreham. Since 1979, at least one, and often two, NRC inspectors have been in residence full-time at Shoreham. In addition to these NRC inspections, LILCO and its contractors have performed more than 6,875 audits, surveillances and verifications in connection with the design, construction and testing at Shoreham.^{11/}

^{9/} This number includes each witness who testified on each contention. Thus, persons who testified on more than one contention are counted for each contention.

^{10/} This figure understates the number of exhibits because it does not include those introduced in the current emergency planning hearings.

^{11/} Since 1970, LILCO itself has conducted over 2,250 audits (excluding audits of vendor programs), over 4,500 surveillances and over 125 verifications.

Nor has scrutiny of Shoreham been limited to the NRC, LILCO and its contractors. Nationally known independent design and engineering firms have also inspected and studied the plant. Among these are Torrey Pines Technology (TPT), which conducted an independent inspection of Shoreham over a six-month period in 1982 with 60 qualified engineers. Thirty-three thousand manhours were devoted by TPT to this inspection. On September 30, 1982, TPT published its report, concluding that:

The review of implementation of the construction control system indicated that the system was effectively implemented over the duration of the construction activity. . . . Favorable results indicated above add confidence that the Shoreham plant construction is of a quality adequate for the nuclear industry because the results reflect a detailed attention to quality assurance requirements early in the construction period as well as now.^{12/}

These TPT conclusions are entitled to special weight, for they successfully withstood the intense scrutiny of litigation and cross-examination. The Licensing Board concluded that the TPT results were consistent with the Board's conclusion that the Commission's quality assurance and quality control requirements had been met in the construction of Shoreham.^{13/}

Following the TPT independent review and inspection, Suffolk County Legislator Blass (now Presiding Officer of that Legislature) commissioned an independent review by an expert panel of his choosing. This panel was charged with investigating both the adequacy of the TPT inspection and allegations made against Shoreham's quality assurance program. On January 14, 1983, the independent Blass panel concluded that LILCO's quality assurance program for Shoreham was satisfactory and that the allegations against the plant were baseless. Significantly, the panel reported that:

^{12/} Torrey Pines Technology, Independent Verification, Shoreham Nuclear Power Station, Final Report, Executive Summary, Vol. I, at 5-2 (Sept. 30, 1982).

^{13/} Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-83-57, 18 NRC 445, 622 (1983).

We are now convinced that LILCO has tried to build a safe plant at Shoreham. We are convinced that Torrey Pines Technology's verification was a careful and honest job, and we agree with their overall conclusion. . . . The TPT verification inspection showed that there is no pattern of bad construction practice at Shoreham. The contrary seems to be the case.^{14/}

Yet another independent review was conducted by Teledyne Engineering Services, a well-known and highly-respected engineering firm. This effort was an in-depth design review of an emergency safety injection system, focusing on design and stress analysis. As the report noted, "it is apparent that a significant portion of the design at the Shoreham plant has been subject to review."^{15/} After a 12,000-manhour, 12-month inspection, Teledyne reached the following conclusions on June 30, 1983:

In the area of Quality Assurance . . . the LILCO QA Program, as applied to construction activity . . . demonstrates: management awareness and participation, a high level of proficiency and efficiency in the Quality Assurance organization, and exceeds the minimum in application and performance of the Quality Assurance Program requirements.

Based on the results of our [Teledyne's] Independent Design Review it is [Teledyne's] opinion that the commitments of the FSAR [Final Safety Analysis Report] with respect to Design and Quality Assurance have been complied with by LILCO and SWEC [Stone & Webster Engineering Corporation] for the Shoreham Nuclear Power Station.^{16/}

That Shoreham is safe and ready for operation, except for certain artificial offsite emergency planning issues, is not open to serious dispute.

^{14/} R. Aronson, M. D'Agostino & H. Kouts, A Report on the Shoreham Nuclear Power Plant 13 (Jan. 14, 1983).

^{15/} Teledyne Engineering Services, Technical Report TR-5633-4, Final Report, Independent Design Review for the Shoreham Nuclear Power Station, Vol. I, at 18 (July 22, 1983).

^{16/} *Id.* 19-20.

B. EFFECTIVE EMERGENCY PLANNING IS FEASIBLE ON LONG ISLAND

New York State and Suffolk County now refuse to cooperate in developing and implementing an offsite emergency plan for Shoreham.^{17/} County and State opposition is purportedly based on the assumption that it is physically impossible to prepare and implement an effective offsite emergency plan for Shoreham; evacuation, they say, is impossible given the geography, topography, road structure and number of people involved. Shoreham's location, they maintain, is so unlike that of the over 100 licensed power reactors in the country, that emergency planning possible elsewhere is impossible on Long Island.

This is nonsense. After giving the County and State more than ample opportunity to substantiate their claim, the emergency planning Licensing Board concluded emphatically that

the record fails to reveal any basis to conclude that it would be impossible to fashion and implement an effective offsite emergency plan for the Shoreham plant.^{18/}

It follows that the emergency planning issues remaining to be resolved stem from County and State refusal to cooperate and not from any inherent impossibility of protecting the populace. Thus, the remaining emergency planning issues are attributable not to insoluble problems of geography, topography, road structure or population, but rather to County and State intransigence.

More specifically, it has now been demonstrated in NRC hearings that the entire 10-mile emergency planning zone (EPZ) around Shoreham can be evacuated more quickly than the EPZ's around many other licensed nuclear plants. LILCO's analysis,

^{17/} These governmental refusals to cooperate in offsite emergency preparedness are contrary to the cooperation envisaged by the Commission. See 45 Fed. Reg. 55,404, col. 1; 55,417, col. 2 (1980); 52 Fed. Reg. 6980, 6981, cols. 1-2 (1987).

^{18/} Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-31, 22 NRC 410, 427 (1985).

accepted by the Licensing and Appeal Boards, shows a normal evacuation time of 4 hours and 55 minutes for the entire EPZ in normal weather and with traffic guides.^{19/} These times compare favorably to other plants located in and supported by New York State. Comparable evacuation estimates for the Nine Mile Point nuclear site are 5 hours and 50 minutes^{20/} and for Indian Point, 7 hours and 40 minutes.^{21/} A comprehensive 1982 study evaluating 52 nuclear plant sites on a consistent basis showed that half the plants studied had evacuation times in excess of that expected for Shoreham.^{22/}

That emergency response is feasible for Shoreham is also apparent from this comparison between Shoreham and Indian Point, where New York State itself has a nuclear unit:

19/ Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 NRC 644, 785-86, 802-03, 807-09 (1985).

20/ New York State Radiological Emergency Preparedness Plan, Part II, Section I, Attachment NMP/JAF-5, at 1 (Nov. 1983).

21/ Consolidated Edison Co. of New York, Inc. (Indian Point, Unit No. 2), LBP-83-68, 18 NRC 811, 962 (1983).

22/ T. Urbanik II, et al., NUREG/CR-1856-An Analysis of Evacuation Time Estimates Around Fifty-Two Nuclear Power Plant Sites (1982).

Suffolk County has stressed the fear that, in the event of an accident, many people living outside the emergency planning zone would leave their homes (even after being told there was no need to leave) and that drivers would not obey traffic guides. Yet studies performed independently by LILCO and Suffolk County show that evacuation of Shoreham's EPZ could be achieved for a summer population under normal weather conditions, in the absence of special traffic controls or traffic guides, even if 50% of those living beyond the 10-mile zone evacuated their homes. Under these trying conditions, both Suffolk County and LILCO concur that the emergency zone could be evacuated in approximately 7 hours and 30 minutes, a time that compares favorably with many plants in the country under more optimal conditions, including Indian Point. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-12, 21 NRC 644, 802-03 (1985). It is noteworthy that the evacuation time estimates prepared by Suffolk County tended to be very similar to LILCO's estimates whenever comparable conditions were modeled.

The much longer evacuation time estimates (15 to 18 hours) sometimes cited by Suffolk County require inclusion of extra-EPZ traffic and roads. They apply only to the EPZ-periphery travel times of voluntary evacuees who originate outside the EPZ from as far away as 40 miles from Shoreham, never enter the EPZ during their journey, and never come closer to Shoreham than the 10-mile EPZ boundary. They also require expansion of the EPZ to include a road now located outside its boundary.

Indian Point has 257,382 people in its EPZ; Shoreham has only 138,539 (winter) to 160,000 (summer).

New York City is 25 miles from Indian Point; in contrast, it is 50 miles from Shoreham to Queens, over 30 miles from Shoreham to Orient Point in eastern Long Island, and over 50 miles from Shoreham to Montauk Point at the far east end of the Island.

The terrain around Indian Point consists of hills and valleys; around Shoreham, it is flat.

The roads around Indian Point are mainly two-lane and rural; Suffolk County has a modern road network in the vicinity of Shoreham.

The evacuation time for the Indian Point EPZ is 7 hours and 40 minutes; the comparable time for Shoreham is only 4 hours and 55 minutes.

10.5% of the people around Indian Point are without automobiles, as compared to only 5% around Shoreham.

There are 3 hospitals and infirmaries (1,540 patients) within 5 miles of Indian Point, and 6 hospitals and infirmaries between 5 miles and the 10-mile boundary of the EPZ (2,700 patients); near Shoreham, there are no hospitals or infirmaries within 5 miles, and 4 hospitals and infirmaries (982 patients) at about 10 miles from the plant.

There are 3 nursing or adult homes (257 residents) within 5 miles of Indian Point, and 24 more (2,201 residents) from 5 miles to the 10-mile EPZ boundary; the comparable figures for Shoreham are only one home (54 residents) within 5 miles, and 8 homes (1,032 residents) from 5 miles to the 10-mile EPZ boundary.

There is a major prison (Ossining) within the Indian Point EPZ that cannot be evacuated.

Indian Point has two units, each approximately 900 MW; Shoreham has only one 809 MW unit.

Politics explain the County's and State's different reactions to emergency planning at Shoreham and Indian Point. As even Governor Cuomo's Marburger Commission on Shoreham diplomatically observed, "[T]he County position is a result of governmental, not purely scientific or technical, processes."^{23/} It is telling that Suffolk County and New York State, while demanding that Shoreham have a 20-mile EPZ, have not

^{23/} Report of the New York State Fact Finding Panel on the Shoreham Nuclear Power Facility 35 (Dec. 1983).

argued that other nuclear plants in New York State must have 20-mile EPZ's (an argument that directly challenges both the NRC's finding that 10-mile EPZ's are sufficient and actual practice at other nuclear plants in New York State). It is also telling that Suffolk County and New York State have not advanced any emergency planning objections to the Millstone Point nuclear facilities just across Long Island Sound from Suffolk County, even though the 1680 MW at the Millstone nuclear complex threaten the Island if the County's and State's emergency planning claims are serious technical and scientific propositions; obviously, they are not.

C. LILCO'S COMPENSATING ACTION

LILCO has put in place for Shoreham its own Local Offsite Radiological Emergency Response Plan (the Plan) to offset the noncooperation of Suffolk County and New York State in emergency planning. Thus, LILCO has developed an offsite radiological emergency plan to satisfy the requirements of the pertinent NRC regulations, 10 CFR §§ 50.47(b) and (c)(2). A response capability for Shoreham, the Local Emergency Response Organization (LERO), has also been put in place and fully trained to implement this Plan. These measures, following extensive litigation and appellate review, have been found, with few exceptions, to satisfy the Commission's regulations.^{24/}

The Plan accommodates the federal guidance for preparation and evaluation of radiological emergency response plans provided in NUREG-0654, Rev. 1.^{25/} Pursuant to

^{24/} See, e.g., Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-855, 24 NRC ____ (Dec. 12, 1986), petition for review filed (Jan. 2, 1987); ALAB-847, 24 NRC 412 (1986); LBP-85-31, 22 NRC 410, aff'd, ALAB-818, 22 NRC 651 (1985), rev'd and remanded, CLI-86-13, 24 NRC 22 (1986); LBP-85-12, 21 NRC 644 (1985), reversed and remanded in part, ALAB-832, 23 NRC 135 (1986); appeal granted in part, Docket No. 50-322, slip op. 2 (Sept. 19, 1986).

^{25/} NUREG-0654 contains specific criteria addressing the standards set forth in 10 CFR § 50.47(b). NUREG-0654 is endorsed by Regulatory Guide 1.101 as an acceptable means of satisfying the requirements of § 50.47.

10 CFR § 50.47(c)(2), the Plan encompasses a plume exposure pathway EPZ of approximately a 10-mile radius from the plant.^{26/} It provides for realistic and effective response at the local level to any radiological incident, even absent County or State participation in the planning effort.

To implement the Plan, LILCO established LERO. This organization consists of more than 2,000 LILCO employees plus personnel and resources from the Department of Energy (DOE) Radiological Assessment Program Team, numerous bus and ambulance companies, one helicopter company and several other organizations. Assistance is also provided by the American Red Cross, the U.S. Coast Guard, the Federal Aviation Administration, and other federal agencies as is provided in any emergency throughout the country. These individuals have been highly trained and drilled to enable them to carry out the various roles and responsibilities outlined in the Plan. The Plan also describes the various agencies involved and the coordination of the response. Implementing procedures are in place delineating all response activities at the local level in reaction to any accident at the plant, regardless of severity. The Plan provides for its continued maintenance and for rigorous training of LERO personnel in the tasks necessary to implement it. The permanent training program includes a systematic refresher program, complete with printed and videotaped course materials and periodic drills and exercises.

In the event of an emergency, LERO's health physicists and nuclear engineers work closely with personnel from Shoreham and DOE's Brookhaven National Laboratory to assess plant conditions and project doses to offsite areas. Based upon this analysis, LERO develops protective action recommendations that will minimize the potential

^{26/} The Plan also encompasses an ingestion exposure pathway EPZ of approximately a 50-mile radius from the plant. There are no unresolved issues related to the 50-mile EPZ. Intervenors raised issues concerning the 50-mile EPZ, but these were litigated in 1984 and resolved.

dose to the public. These recommendations are promptly transmitted to the public via a system that includes 89 sirens located throughout the EPZ, an Emergency Broadcast System and tone alert radios for special facilities. LERO's special Route Alert Drivers are dispatched in case of siren failure and to notify the deaf.

If protective action recommendations include evacuation of all or a portion of the 10-mile EPZ, extensive resources are committed. LERO can put in place 165 traffic guides to assist the flow of traffic according to predetermined strategies at 130 points. LERO has contracted to provide 1,236 buses plus 26 vans from 12 companies. Three hundred thirty three of these buses run routes throughout the EPZ to evacuate those residents who do not have their own method of transportation. Additional buses or vans are sent on routes to pick up people who can walk to their curb, but cannot make it to a designated bus route. In case of a highway accident or other impediment to evacuation traffic, LERO has trained route spotters to locate the problem and road crews to remove the impediment. Fuel trucks are also placed at strategic locations to dispense gasoline to cars low on fuel.

Approximately 200 ambulances and ambulettes are available to evacuate patients of health care facilities and the homebound handicapped. LERO has met with and worked on emergency plans for three hospitals and one infirmary, nine nursing and adult homes, and 22 facilities for the handicapped. Additionally, it has met with and worked on plans for 18 school districts and BOCES I and II (vocational school districts), 12 nursery schools and six parochial schools.

Three reception centers have been designated and manned with over 200 LERO personnel trained and equipped to monitor the evacuating public. Decontamination facilities are available to remove any contamination. LERO also works closely with the American Red Cross to shelter those evacuees who need a place to stay. LILCO has made its own facilities available to the Red Cross for congregate care centers.

To keep the public informed of the emergency status, Shoreham and LERO operate an Emergency News Center with facilities for hundreds of media and related personnel. This Center has direct lines to the LERO Emergency Operations Center so that the latest information can be provided to the public.

LERO, using the Plan, is capable of providing adequate personnel and equipment to assure the health and safety of the public. This may be accomplished either independently or through coordination with local and state emergency response personnel.

The Plan, its LILCO-only implementation and LERO have been thoroughly reviewed in litigation before NRC Licensing and Appeal Boards.^{27/} The Licensing Board, in two Partial Initial Decisions, concluded that emergency planning is feasible for Shoreham and Long Island and that the Plan largely complies with the pertinent regulations.^{28/} Some deficiencies were noted, but these were held remediable and no bar to a full-power license.^{29/} The Licensing Board concluded, however, that no operating license should be issued because LILCO, without County or State cooperation, lacked the legal authority to implement certain aspects of the Plan. The Appeal Board affirmed the Licensing Board's findings as to feasibility of emergency planning for Shoreham and

^{27/} Suffolk County and New York State filed 97 contentions on the Plan, with many subparts, covering 177 pages. More than 70 contentions were litigated, with a total of more than 80 witnesses testifying.

^{28/} Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-85-31, 22 NRC 410 (1985); LBP-85-12, 21 NRC 644 (1985).

^{29/} These deficiencies are not inherent in the Plan; they are the result of County and State intransigence. As the Licensing Board put it:

It should be stated at this point, that inasmuch as it is the LILCO Plan, the inadequacies are ascribable to LILCO. However, to a significant degree the inadequacies resulted from and have been aggravated by Suffolk County's and New York State's opposition to the Plan.

22 NRC 410, 427 (1985).

the Plan's essential compliance with the regulations. It remanded a few issues for further litigation and agreed that LILCO's lack of legal authority was fatal to a license in the face of County and State refusals to cooperate. The NRC Commission, however, reviewed this aspect of the decision and reversed. It held that in a real emergency, state and local governments would respond "on a best-effort basis" to protect the public.^{30/} Such efforts, the Commission ruled, would include using the LILCO Plan. Thus, the Commission eliminated the legal authority issue as a bar to licensing in a situation such as Shoreham's.

There are a number of full power emergency planning issues still to be resolved by the Commission and the Licensing Board. But the extensive litigation to date plainly shows that the Plan, implemented by LERO, gives reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Shoreham.

In sum, LILCO is proceeding, as Congress intended,^{31/} with a "utility plan."

^{30/} See CLI-86-13, 24 NRC 22, 31-33 (1986).

^{31/} In a recent letter to the NRC's Chairman, Senator Alan Simpson accurately summarized the pertinent congressional intent:

In establishing the framework for emergency planning in 1980, Congress fully expected that State and local governments would play an important role in the development and implementation of emergency plans. But we did not intend to confer on state or local governments -- either directly or indirectly -- the authority to "veto" the Commission's decision to issue an operating license for a nuclear power plant simply by refusing to participate in the development or implementation of an emergency plan for that facility.

. . . .

In order to avoid such a stalemate over emergency planning, Congress directed the Commission to provide for an alternative approach to emergency planning that could be pursued by an applicant in the event that a state or local government refused to develop or implement an emergency

(footnote continued)

D. COUNTY AND STATE OPPOSITION TO SHOREHAM
CONSTITUTES A TOTAL CHANGE OF POSITION

Local and state officials' present opposition to Shoreham is a dramatic and unwarranted departure from past posture and policy. From its inception, Shoreham had the support of Suffolk County. Indeed, the County was among Shoreham's earliest and most enthusiastic proponents. In 1970, Suffolk County Executive H. Lee Dennison testified in the Shoreham construction permit proceeding in the most emphatic terms:

I am here in representation of the 1,100,000 people of the county of Suffolk, and I speak as the administrative head of the county government, as the county budget officer; and I have a certain basic responsibility for the health, safety, and well-being of the people of the county, a concern with adequate and safe transportation, police, finances, the general economy, human relationships, public health and welfare, adequate and clean fresh water, and surely the assurance of the quality of service and consumer price for light and power Now there isn't any other source for energy in this area. We can't depend upon the metropolitan region or New York State or the St. Lawrence power plants. We must begin to be self-sufficient I urge you, Mr. Chairman, as County Executive to grant immediate licensing for construction of this nuclear power facility as proposed at Shoreham.^{32/}

Two years later, the next Suffolk County Executive, John V. N. Klein, reaffirmed this support in his report to the Suffolk County Legislature:

(continued from previous page)

plan. This approach, commonly referred to as the "utility plan" option, was specifically formulated by Congress to address the very hostage situation that the Commission is now confronting in an increasing number of cases, by permitting a utility to submit an emergency plan of its own directly to the Commission and, based upon that plan, to be granted an operating license.

Letter from Senator Alan K. Simpson to the Hon. Lando Zech 1-2 (Feb. 27, 1987). See also Part II.B.1 above.

^{32/} Suffolk County Executive H. Lee Dennison, Shoreham Construction Permit Hearings, NRC Docket No. 50-322 (CP), Tr. 216 (Sept. 21, 1970) (emphasis added).

My predecessor has openly and aggressively endorsed the proposal for the Shoreham Atomic Plant. In this annual report, I reconfirm that executive commitment and support.^{33/}

Thus, throughout the construction permit proceedings, Suffolk County was a vocal and enthusiastic supporter of Shoreham. Only private intervenors, chiefly the Lloyd Harbor Study Group, opposed the plant, asserting among other claims that adequate emergency planning was not feasible for Shoreham. The Licensing Board rejected this assertion, stating that LILCO

ha[d] outlined its plan for coping with emergencies and ha[d] conferred with New York State and local authorities with respect to them.^{34/}

The Appeal Board concurred.^{35/}

Following the issuance of the construction permit, the Suffolk County Executive directed the Suffolk County Department of Emergency Preparedness to develop a "Response Plan -- Specific Operating Procedures for Major Radiation Incidents." During the period 1974-76, the State, County and LILCO met on several occasions to define the emergency planning roles and responsibilities of each body.

In 1977, in response to federal regulations, County Executive Klein directed County Emergency Preparedness Director Norman Kelly to formulate an emergency response plan for Shoreham. He also directed the Suffolk County Department of Transportation to develop the evacuation section of the plan based on an Emergency Planning Zone five miles in radius from the plant. By the summer of 1978, the County had completed its initial General Radiation Emergency Plan. On August 30, 1978, the

^{33/} J. V. N. Klein, Report to the Suffolk County Legislature - 1972 (Jan. 3, 1972).

^{34/} Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-73-13, 6 AEC 271, 285 (1973).

^{35/} Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-156, 6 AEC 831, 851 (1973).

County Executive approved this plan. It was also reviewed and accepted by the New York State Office of Disaster Preparedness.

As a result of the Three Mile Island accident in 1979, expanded emergency preparedness plans came to be required by the NRC. For example, additional planning was required for exercises and drills, public education and information, and notification methods. To comply with these new regulations, LILCO began discussions with private consulting firms to aid the County in revising its plan. On December 28, 1979, LILCO and County Executive Klein signed a "Memorandum of Understanding" outlining the updated responsibilities of the County in emergency planning for Shoreham. A cover letter to the Memorandum noted that County Executive-elect Peter Cohalan had approved the terms of the Memorandum.

Early in 1980, Suffolk County officials and emergency planning personnel were given tours of Shoreham. In March of that year, Company representatives met with approximately 60 members of various Suffolk County departments involved with emergency planning. In April 1980, LILCO also met with New York State and Suffolk County to discuss state plans for emergency planning. In May 1980, nine volumes of material were filed by LILCO with the Suffolk County Legislature's Health Committee for public hearings on nuclear power. In April 1980, LILCO also met with New York State and Suffolk County to discuss state emergency preparedness plans.

Throughout this period, New York State and Suffolk County officials consistently expressed support for, and cooperation in, all aspects of emergency planning. Indeed, in September 1980, at the direction of Suffolk County officials, LILCO requested EDS Nuclear, Inc. (now Impell Corp.) of Melville, New York to prepare a proposal to revise the emergency plan. Representatives of EDS met with the Chief Deputy Suffolk County Executive on several occasions. Ultimately, the Chief Deputy declined the EDS proposal and stated that the County would instead develop the revised emergency plan on its own since County personnel had already acquired the necessary

expertise in developing the County's original plan. LILCO agreed to support the County's efforts in this regard.

Cooperative efforts continued throughout 1980 and into 1981. On March 15, 1981, LILCO and Suffolk County signed a contract calling for the County to produce a radiological emergency response plan within six months at a cost to LILCO of \$245,000. Though the Suffolk County Legislature rejected the initial contract, an amended contract was submitted and accepted by the Legislature on September 10, 1981. As stipulated in the contract, LILCO issued a check for \$150,000 to the Suffolk County Planning Department for the first payment. County work on the emergency plan proceeded vigorously.

In February 1982, Suffolk County unilaterally terminated its agreement with LILCO, returned the \$150,000 and said that it would complete the emergency plan without use of LILCO funds. Thereafter, in early 1983, the County changed its position on the merits; for the first time, it began active opposition to the licensing of Shoreham on the basis of emergency planning.

New York State's support of Shoreham from its inception was as emphatic as the County's. Some 75 state and local permits were required for the Shoreham project to get underway. All were granted. One of these approvals came from the New York State Department of Environmental Conservation which, after 22 days of hearings and on the basis of a 6,000-page record, ruled in favor of Shoreham on June 22, 1972.

In December 1971, the New York State Public Service Commission expressed its support for Shoreham as vital to the reliable supply of electrical power to Long Island:

LILCO reserve margins will be adequate if the Shoreham unit is delayed only to 1977. Any additional delay could have severe effects on LILCO and Consolidated Edison because LILCO could be dependent on power transfers from the New York Power Pool System, transfers that must use the same transmission capability as is needed to supply Consolidated Edison, a utility expected to be in frequent need of assistance itself.^{36/}

36/ System Planning Section, Power Division, New York State Department of Public Service, The New York Power System Generation and Transmission Plans 1971-80 (Dec. 1971).

The Public Service Commission in 1975, and again in 1977, reviewed anew the need for Shoreham and in each instance unreservedly approved its continued construction. Indeed, in May 1981, the PSC adopted its administrative law judges' recommendation that:

Shoreham be completed as soon as possible to reduce LILCO's total dependency on oil fired electric generation and its attendant vulnerability to interruption of foreign oil supplies.^{37/}

Shoreham has consistently been part of the New York State Energy Master Plan. The 1980 report stated that New York's Plan "projects the successful completion and operation of two plants currently under construction at Nine Mile Point 2 and Shoreham."^{38/} As late as December 1982, New York State remained firm in its support of Shoreham. In litigation against Suffolk County, the New York State Disaster Preparedness Commission maintained that emergency planning for Shoreham is feasible.^{39/} As late as August 1983, the draft report to the New York State Energy Master Plan stated that the

main components of the Electricity Supply Plan include: completion of the Shoreham, Somerset and Nine Mile Point 2 facilities.^{40/}

In other words, for a decade and a half, Suffolk County and New York State actively supported and assisted emergency planning for Shoreham. Not until 1983, after enormous resources had been irreparably committed to the effort, did they repudiate their prior positions. It is difficult to imagine a more arbitrary about-face. This switch

^{37/} PSC Opinion No. 81-9, PSC Case 27774, mimeo 96 (1981).

^{38/} New York State Energy Office, New York State Energy Master Plan, Final Report 54 (Mar. 1980).

^{39/} Suffolk County v. State of New York Disaster Preparedness Commission, N.Y. Sup. Ct. Consol. Index No. 5145-82 (Dec. 6, 1982).

^{40/} New York State Energy Office, New York State Energy Master Plan, Draft Report 353 (Aug. 1983).

at the twenty-fourth hour is all the more capricious because, for reasons already noted, it so wholly lacks technical and scientific basis.

It bears repeating. Suffolk County and New York State supported and encouraged the construction of Shoreham from its inception. This support, including cooperation in emergency planning, continued for almost 15 years. At the last minute and without good cause, this support was withdrawn. In its place came artificial emergency planning obstacles that are the direct and proximate cause of State and County refusal to cooperate and that have nothing to do with the safety of Shoreham's design, construction or operation and nothing to do with the actual feasibility of emergency preparedness on Long Island.

IV.

IN CONCLUSION, THE REAL ISSUES

The real issues at Shoreham do not concern the safety of the plant itself or the feasibility of effective emergency planning on Long Island. Opponents of the plant have had vast opportunity to litigate their concerns on these scores. Based on an immense record, NRC judges have ruled against them; the NRC has found repeatedly and in submicroscopic detail that Shoreham is safe and that effective emergency planning is feasible for it.

Nor is there any issue about whether Suffolk County and New York State supported Shoreham's construction, agreed on the feasibility of effective emergency planning for the plant, and worked on getting effective emergency preparedness in place -- until literally the twenty-fourth hour.

Until the twenty-fourth hour, local and state officials supported Shoreham, year after year, not only because they thought the plant was compatible with public health and safety but also because they knew the plant was needed. As before, it is still

needed to meet rising demand for electricity on Long Island and to displace foreign oil on Long Island. On countless past occasions, local and state officials recognized these realities.

Because Shoreham has become politically unpopular, local and state governments now oppose it. They hope to make the plant go away without having to spend money to condemn it; their strategy, again, is (1) to insist that the taking of certain actions wholly within their control is essential to the NRC's licensing of Shoreham, (2) systematically to refuse to take these actions, and (3), precisely because these actions have not been taken, to demand that the federal government force LILCO to abandon Shoreham.

This strategy turns the NRC licensing process into a de facto state and local condemnation process, without the need for the state and local governments doing the condemning to have to pay for the expropriated property. Among other flaws, this strategy constitutes an abuse of federal regulation. The proposed emergency planning rule will prevent such abuse. Thus, the first real issue posed by the proposed rule is whether the NRC may protect the integrity of its licensing process.

Even more important, the issue at hand is whether the federal government, acting through the NRC, will retain the final say over questions of radiological health and safety at nuclear plants. If states and localities may veto nuclear plants by refusing to participate in their emergency planning because state and local officials of the moment insist, despite directly contrary NRC findings, that the radiological risk is too great, then federal regulation of radiological health and safety will give way to state and local regulation and to the full play of state and local politics -- with all the confusion, conflict and caprice that will entail. It is just that simple.

The NRC's proposed rule is profoundly in the national interest.

STATEMENT OF GEORGE W. EDWARDS, JR.

Chairman, President and Chief Executive Officer

THE UNITED ILLUMINATING COMPANY

Before the

SENATE ENVIRONMENT & PUBLIC WORKS SUBCOMMITTEE

ON

NUCLEAR REGULATION

May 7, 1987

Good morning Mr. Chairman. My name is George Edwards and I am President and Chief Executive Officer of the United Illuminating Company (UI) of New Haven, Connecticut. UI serves approximately 300,000 customers in the rapidly growing industrial heartland of our state from a resource mix that relies heavily on oil and coal-fired power plants as well as on 98 MW of capacity from the Connecticut Yankee and Millstone 3 nuclear power plants. We also hold, with a 17.5 percent share, the second-largest share of Seabrook Station.

On behalf of UI and our 11 partners in the project, I want to express my gratitude for having been invited here today to talk about what is mostly a New England success story in economic and energy growth, prudent utility planning and, in the case of Seabrook, recognized excellence in nuclear power plant construction and operational readiness.

In fact, Mr. Chairman, the Seabrook success story is marred only by a very frustrating degree of interstate energy politics that seeks in emergency planning a vehicle to undo more than 12 year's worth of support from Massachusetts that made Seabrook's completion possible.

There is no question that the electricity needs of our region have grown very substantially since application for Seabrook's construction permit was first made in 1973. New England has been enjoying a manufacturing and high-technology boom that has brought jobs and so much electricity load growth that we are now in our fifth year of average demand expansion in excess of 4 percent per year. To give you an idea of how fast we have to run to keep up

with demand, a report prepared last June for the New England Governors' Conference - and accepted by the governors - uses a low annual load growth prediction of 3.2 percent to forecast that without Seabrook 1 on-line, the region will need another 2,800 MW of new capacity in place by 1992. This is equivalent to roughly 2 1/2 additional plants - each the size of Seabrook. The report postulates even more serious regional shortfalls from 5,000 to 10,000 MW between 1995 and the year 2000. Although the report, which I will submit with my testimony, suggests that 1,700 MW of qualifying cogeneration facilities may come on-line over the next few years, only about 250 MW of it are sitting out there today.

Mr. Chairman, New England badly needs Seabrook 1's 1,150 MW of capacity. Owners of the project have defied a now-fashionable cliché which holds that new nuclear plants are largely the result of utilities' "guessing wrong" about electricity demand while they try to get their plants on-line so that ratepayers can "bail out" their mistakes. We guessed right. And so did Massachusetts. In August, 1976, the state's Department of Public Utilities granted approval for several municipal electric systems to acquire ownership interests in Seabrook. The DPU stated that "...because of the energy crisis and the heavy reliance on fossil fuel for most existing generating units in Massachusetts, there is a need for nuclear units to be included in the electric power generation mix." Seabrook, concluded the DPU, would be "beneficial to the power needs of the Commonwealth of Massachusetts..."

If Seabrook was prudently planned, it was also exceptionally well designed and built. The NRC staff's latest Systematic As-

assessment of Licensee Performance (SALP) review ran from January 1, 1985 to March 31, 1986. We received a "1" - the highest mark possible - on all facets of construction quality, including containment design and integrity; safety-related structures and major steel supports; piping systems and supports; safety-related mechanical components; auxiliary systems; electrical equipment and cables; and instrumentation. Seabrook also received 1's on preoperational testing; fire protection and housekeeping; operations readiness; assurance of quality; and licensing. In only one rating category, on-site emergency preparedness, did the project receive a "2" - still an acceptable rating. Even that was only because not all personnel had been hired and fully trained when the evaluation ended. Preparing the SALP review took almost 8,000 hours of physical plant examination, document verification and personnel interviews.

We are very proud of what is certainly one of the world's best staffed and built nuclear plants, the only one in the world with a double containment. We extend to you and other members of the subcommittee an invitation to see what I'm talking about firsthand. I would ask that you go to Seabrook. Bring your staff people and any experts of your choice. Talk to anyone you like and check my claims. I think you'll agree with a 1986 prudency assessment of the plant done for Public Service of New Hampshire by Pickard, Lowe and Garrick: "The end result of the Seabrook project - the quality of the product - is excellent by all indicators; available to PLG..."

How is it that despite ample need and construction excellence

our \$4.7 billion investment simply sits idle at a cost per month of about \$50 million?

The reason is pure interstate energy politics based on a long history of conflicting "yes's" and "no's" from the state of Massachusetts.

One often hears that Massachusetts opposed Seabrook Station from the very beginning. Emergency planning concerns are even cited in a "we-knew-way-back-then" fashion as a basis for opposition. But whether or not Massachusetts opposed the project all along depends on which Massachusetts one talks to. Because while it's true that the state's attorney general's office has consistently spoken against Seabrook, the Massachusetts Department of Public Utilities has supported the project for 12 years.

I mentioned earlier that the DPU gave approval to Massachusetts municipalities for their initial acquisition of an ownership interest in Seabrook back in 1976. That's when municipalities gained a small 0.2 percent share. Today, local governments in Massachusetts own 11.6 percent, making them the fourth-largest owner of Seabrook. Why such an increase? Because in 1980 and 1981 when the Public Service Company of New Hampshire was financially unable to carry the project forward as a 50 percent owner, the Massachusetts Department of Public Utilities allowed local governments in the state to increase their ownership in Seabrook. As the Massachusetts DPU stated at the time "...we have found that the acquisition of additional ownership interests in the Seabrook project is, for these companies, the most viable option which can be relied upon at this time in planning future system require-

ments."

I have attached to my testimony a chronology of Massachusetts state agency approvals for Seabrook.

In short, Mr. Chairman, Massachusetts has many times been in a position to stop Seabrook by blocking the financing arrangements that allowed utilities in that state to make the project's completion possible. Except on rare occasions, they gave it the necessary approvals and kept Seabrook alive.

Those were the years of "yes." Last September marked a shift to "no" when the governor of Massachusetts formally announced that he would not submit emergency response plans for the six Massachusetts towns that lie within Seabrook's 10-mile emergency planning zone (EPZ). The stated reason was that emergency planning and evacuation could not adequately protect the public in the event of an accident.

Massachusetts did not always hold that view, however. In fact, the 25-volumes of Massachusetts State and Local Radiological Emergency Response Plans and Procedures for Seabrook, which we recently submitted to the NRC, were actually prepared by the Massachusetts Civil Defense Agency and its major contractors - primarily Schneider EC Planning and Management Services - the firm that manages FEMA's National Emergency Planning Training Center in Emmitsburg, Maryland. The plan for Massachusetts had progressed through two FEMA reviews when the state officially pulled out last September. The comments from those reviews were incorporated in the plan that we, the joint owners, submitted to the NRC.

Attached to my testimony is a 3-page description of the

volumes comprising the Massachusetts plan. Our emergency planning experts are here today to assist me in answering any specific questions about the plan.

I'll note that the state of Massachusetts has claimed that there are about 50,000 permanent residents in the Massachusetts portion of the zone. The state claims that the population balloons to upwards of 150,000 to 200,000 during the peak summer beach months. A comprehensive study by New York-based KLD Associates, under the direction of the Massachusetts Civil Defense Agency, revealed that the permanent population is indeed 50,609. But the same study puts the peak transient population on a summer weekend at 35,114, yielding a total peak population of 85,723 in the Massachusetts part of the zone. We know of no study that supports a 150,000 - 200,000 estimate. Why is this correction important? Because at least part of the numerical basis for Massachusetts' withdrawal from planning was based on data not supported by the state's own studies.

It's been argued that Massachusetts ended the participation in Seabrook emergency planning it began in 1983 because all the effort and studies finally led to the conclusion that adequate evacuation was simply not feasible.

An examination of evacuation time estimates for the entire Seabrook emergency planning zone - Massachusetts and New Hampshire combined - shows that evacuation is indeed feasible.

Seabrook evacuation time estimates were completed in the spring of 1986 by KLD Associates whose "IDYNEV" (Integrated Dynam-

ic Evacuation) model has been adopted by FEMA. KLD worked under the "direct control" of Mr. Robert Boulay, Director of the Massachusetts Civil Defense Agency.

The fastest evacuation time for Seabrook - for the resident population in good weather - is 4 hours and 40 minutes. And while one hears a lot about the summer beach population around Seabrook during good weekend weather, the estimated evacuation time in this situation is only 6 hours and 15 minutes. The time rises to 6 hours and 30 minutes for the resident population in inclement weather. The very slowest Seabrook evacuation time estimate is 9 hours and 45 minutes, which assumes an accident taking place during a sudden rain at mid-week in the summer.

How does Seabrook's estimated evacuation time compare to other nuclear plants around the country? Some "best" and "worst" times from a 1981 NRC study provide an interesting perspective.

- o For the population around the Calvert Cliffs nuclear plant in Maryland, the best time under normal conditions is 8 hours and 46 minutes, while the worst time under adverse conditions is 18 hours and 16 minutes.
- o For the North Anna plant in Virginia, it's 6 hours under normal conditions and 16 hours under adverse conditions.
- o For the Quad Cities plant in Illinois, the best time under normal conditions is 6 hours and the worst time under adverse conditions is 12 hours.
- o For the Duane Arnold plant in Iowa, the best time under normal conditions is 3 hours and 11 minutes and the worst time is 10 hours and 51 minutes.

I am not saying, Mr. Chairman, that there is anything wrong with emergency planning for the other plants I mentioned and whose data I summarize in a table attached to my testimony. Emergency planning for those plants is obviously acceptable to the states involved as well as to the NRC and FEMA. Yet while the slowest evacuation time estimate for Seabrook is faster than those for the other plants, we're told by Massachusetts that planning for Seabrook isn't feasible. It's frustrating and I think it's wrong.

Mr. Chairman, if Congress allows situations like these to continue, then what is happening to us can happen to every other nuclear power plant in the United States. If Massachusetts can show that it makes policy with regard to a nuclear plant that's not even within its borders, then the operation of any facility could well be jeopardized by the next municipal, county or state house election. After all, current regulations require a full participation exercise of every operating plant's emergency plan every two years. What happens to FEMA's ability to make the required finding on the adequacy of a plan to protect the public health and safety if a state or town decides to sit the exercise out? Shutdown is probably the most likely result under the NRC's current regulations.

This is clearly counter to the intent of Congress. When the NRC Authorization Act of 1980 first instructed the Commission to promulgate regulations for off-site emergency planning, the statement of the managers of the House-Senate Conference Committee opposed the use of emergency planning as a backdoor veto of nuclear plant operating licenses.

"The conferees sought to avoid penalizing an applicant for an operating license if a state or locality does not submit an emergency response plan to the NRC for review or if the submitted plan does not satisfy all the guidelines or rules. In the absence of a state or local plan..., the compromise permits NRC to issue an operating license if it determines that a state, local or utility plan...provides reasonable assurance that the public health and safety is not endangered by operation of the facility."

I recognize that this subcommittee has spent years trying to clarify the value of utility plans in the face of state and local refusal to implement them. But the conferees' bottom-line seven years ago was that applicants should not be penalized for the refusal of state and local governments to cooperate. Several senior members of this subcommittee were conferees on the NRC Authorization Act seven years ago and there has obviously been a lot of "penalizing" despite your intentions at the time.

The system broke down not with the law you enacted, but with the regulations NRC promulgated in 1980 to implement it. Today, the Agency is seeking comments on a proposed rule to stop the de facto veto mechanism it created seven years ago.

Rather than trying to kick states out of the process, the new rule seeks only to kick them in. The bottom line is that for an otherwise safe plant, for which emergency planning is feasible, the refusal to participate cannot by itself be used to deny an operating license.

This sends the signal that the train is leaving the station with or without cooperation. My view is that such a signal is a very powerful incentive to cooperate.

Even if the rule is adopted in its present form, four substantial hurdles to licensing remain.

1. The applicant must show that non-cooperation "could be remedied, or adequately compensated for, by reasonable state or local government cooperation."
2. The applicant must demonstrate "a good faith and sustained effort to obtain the cooperation of the necessary governments."
3. The applicant's off-site plan must include "all effective measures to compensate for the lack of cooperation which are reasonable and feasible under the circumstances and which take into account a possible state or local response to an actual emergency."
4. The applicant must provide copies of the plan to all governments and "assure them that it stands ready to cooperate should they change their position."

That's the proposal, Mr. Chairman - a way out of the impasse many of you sought to avoid in 1980. The rule would have absolutely no effect on states which cooperate in planning; it kicks in only after a state absolutely refuses to join the process.

And even with the rule, Mr. Chairman, states are still free to litigate whether or not a utility has met the four hurdles.

In short, the proposed rule is not a panacea. It only begins

to end a situation where one state tries, after years of conflicting "yes's" and "no's," to impose its politics on an entire region and its nuclear policy on the entire country.

We think it's fair and reasonable. Thank you, Mr. Chairman. I'd be happy to answer your questions.

Attachments

S.J.C. 3876

Fitchburg Gas & Electric vs. D.P.U.p. 457 D.P.U. 18076 September 4, 1974

Massachusetts Municipal Wholesale Electric Company petitioned for D.P.U. approval of its purchase of an ownership interest in several nuclear generating units including Seabrook Unit Nos. 1 and 2.

p. 459 In D.P.U.'s findings, they stated that "...because of the energy crisis and the heavy reliance on fossil fuel for most existing generating units in Massachusetts, there is need for nuclear units to be included in the electric power generation mix."

p. 459 D.P.U. further stated that the facilities including Seabrook Units Nos. 1 and 2 would be "beneficial to the power needs of the Commonwealth of Massachusetts and such facilities are consistent with the power needs of the Commonwealth of Massachusetts".

p.442 D.P.U. 18779 August 6, 1976

MMWEC petitioned for D.P.U. approval of its share of project costs of four nuclear generating units including Seabrook Nos. 1 and 2 that would be financed through the issuance of bonds not to exceed \$335,000,000. MMWEC would be financing a 0.163% interest in Seabrook.

p. 447 D.P.U. approved MMWEC's borrowing of project costs related to the four nuclear generating units including Seabrook Units Nos. 1 and 2.

p. 432 D.P.U. 19325 November 14, 1977

MMWEC petitioned for D.P.U. approval of its costs associated with an ownership interest in Seabrook Nos. 1 and 2 that would be financed through the issuance of bonds not to exceed \$222,000,000. (4.348% interest in Seabrook)

p. 435 D.P.U. approved MMWEC's borrowing for costs associated with ownership interests in Seabrook Nos. 1 and 2.

p. 424 D.P.U. 19461 April 7, 1978

MMWEC petitioned for D.P.U. approval of its costs associated with an ownership interest in Seabrook Nos. 1 and 2 that would be financed through the issuance of bonds not to exceed \$75,000,000. (1.371% interest)

p. 429 D.P.U. approved MMWEC's borrowing for costs associated with ownership interests in Seabrook Nos. 1 and 2.

p. 461 D.P.U. 20055 October 30, 1980

D.P.U. 19738, 19743, 20109 and 72 were consolidated with 20055.

19738 Montaup purchase of CL&P interest
in Seabrook

- 19743 Fitchburg purchase of CL&P interest in Seabrook
- 20109 Montaup purchase of UI interest in Seabrook
- 72 Readjustment of ownership interest in Seabrook; acquisition by Fitchburg, reduction by PSNH
- 20055 Montaup and New Bedford acquisition of Seabrook ownership interest and reduction of interest by PSNH

p. 753 D.P.U. stated in its conclusions that, "...the project represents a particularized and well defined future source of generation capacity."

p. 756 D.P.U. further stated in its conclusions that, "...we have found that the acquisition of additional ownership interests in the Seabrook project is, for these companies, the most viable option which can be relied upon at this time in planning future system requirements."

 p. 757 In reflecting upon alternatives such as solar, wind, independent power production and cogeneration, D.P.U. stated that, "these companies cannot base their present planning responsibilities upon alternatives which only offer at this time the potential that their widespread application and further development may become quantifiable sources of power in the future."

p. 760 D.P.U. in these proceedings ordered the following:

1. Montaup purchase of a 1 percent interest in Seabrook from PSNH was approved.
2. Montaup purchase of a 1.03542 percent interest in Seabrook from CL&P was disallowed. (Did not believe Montaup demonstrated it could meet its financial commitments.)
3. Montaup purchase of a 1.06469 percent interest in Seabrook from U.I. was disallowed. (same reason)
4. Fitchburg purchase of a 0.4349 percent interest in Seabrook from CL&P was allowed.
5. Fitchburg purchase of a 0.2609 percent interest in Seabrook from PSNH was allowed.
6. New Bedford purchase of a 2.1739 percent interest in Seabrook from PSNH was allowed with stipulation that New Bedford transfer the interest to Canal Electric.

MMWEC petitioned for D.P.U. approval of its share of project costs associated with an ownership interest in Seabrook Units Nos. 1 and 2 that would be financed through the issuance of bonds not to exceed \$335,000,000.

- p. 422 D.P.U. approved MMWEC's borrowing for costs associated with an ownership interest in Seabrook Nos. 1 and 2.

New England Electric System Petition for Approval
of Joint Long-Range Supply Forecast

Docket EPSC 76-24

2 DOMSC 1 (15 June 1977)

- p. 2 The New England Power Company petitioned the Energy Facilities Siting Council to build a transmission line from an existing substation in Tewksbury to the state line in Amesbury where it would tie into a PSNH line from Amesbury to Seabrook.
- p. 2 NEPCo stated that they needed the line to connect Seabrook to the main transmission grid.
- p. 4 In its Order, the Siting Council found that the Amesbury-Tewksbury line was needed and was "consistent with the policy of providing a necessary power supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost."
- p. 4 The Council further stated that ... "the need for the line and substation is directly dependent on the completion of the Seabrook nuclear plant and that the company undertake construction in a manner which is consistent with the construction program at the Seabrook facility."
- p. 5 NEPCo proposed to build a transmission line from Tewksbury substation to Dracut where it would continue to a PSNH facility in New Hampshire.
- p. 5 NEPCo officials stated that the line was needed coincident with the operation of the second nuclear unit at Seabrook to provide for reliable power from New Hampshire to Massachusetts power grid.
- p. 6 The Siting Council approved the line but also conditioned it upon NEPCo to "undertake construction in a manner which is consistent with the construction program at Seabrook."

Petition of Massachusetts Electric Company, New England Power Company, Yankee Atomic Electric Company and Manchester Electric Company for Approval of Supplement 2B of Their Second Long Range Forecast of Electric Resources and Requirements

p. 2 EFSC Docket No. 83-24 December 18, 1986

The Siting Council was asked by several intervenors to determine whether the companies had complied with the conditions of the 1977 Order in its approval of the Amesbury-Tewksbury line and Dracut-Tewksbury line.

p. 36 The Siting Council found in their Order "that the companies are proceeding to build the line that will provide at minimum cost the reinforcement to the New England grid that would be needed in conjunction with Seabrook 1."

p. 38 The Council stated that the companies "are in compliance with the Siting Council's condition in its 1977 order."

SEABROOK STATION RERP FOR MASSACHUSETTS

New Hampshire Yankee submitted to the NRC a complete set (25 volumes) of the Massachusetts State and Local Radiological Emergency Response Plans and Procedures. This set consists of the following:

o Massachusetts State Plan

This volume details how the State agencies would respond to a radiological incident at a nuclear power station. The response (command control and decision making functions) from the State Emergency Operations Center (EOC) would be the same for an incident at Yankee Rowe, Vermont Yankee, Pilgrim, or Seabrook.

o NIAT Handbook

The Nuclear Incident Advisory Team Handbook and its appendices provide a working document for Massachusetts Department of Public Health emergency functions including field monitoring and dose assessment. The appendices contain the site-specific information for each nuclear power plant, including Seabrook.

o Massachusetts Area I Plan

For Seabrook, the Area I Plan provides the communication link between the State EOC and the local response organizations and provides guidance to local State agency officials as to the manner in which Area I MCDA/CEP emergency response organization will respond to an emergency at Seabrook. It is designed to coordinate assistance to the six (6) Massachusetts communities located within the Seabrook Station Plume Exposure EPZ and the two (2) host communities in carrying out their Radiological Emergency Response Plans (RERP).

o Massachusetts Compensatory Plan

This plan defines and establishes the response by the State of Massachusetts to compensate for local communities who are unable or unwilling to respond to an event at Seabrook.

o 6 Two Volume Sets of EPZ Town Plans/Procedures

Each of the six local communities have an emergency response plan and community-specific procedures. Included within these plans are: general information on the local town emergency response organization and its relationship to State and Federal agencies and the utility, a functional description of the emergency response to all conditions resulting from an incident at the Seabrook Station, and support documentation necessary to ensure an adequate emergency response.

o 2 Two Volume Sets of Host Town Plans/Procedures

Each of the two host communities have an emergency response plan and community-specific procedures. These plans and procedures describe the preparation for and responses required in order to activate/operate reception centers and receive evacuees in the event of an evacuation caused by an incident at the Seabrook Station.

o One Volume containing 10 Special Facility Plans

Each private school, hospital, or nursery school in the 10-mile plume exposure pathway zone have a facility-specific emergency response plan. This plan details the responsibilities and procedures for the protection of their respective inhabitants and provide for the direction and control of each respective facility.

o One Volume containing 4 School Plans

Each of the four school districts in the 10-mile plume exposure pathway zone have a specific emergency response plan. These plans detail the responsibilities, of the school and provides for the direction and control of school facilities, staff and students in the event of an incident at the Seabrook Station.

These Plans and Procedures were developed by the State and local governments of Massachusetts with assistance from consultants under the technical direction and supervision of the Commonwealth of Massachusetts Civil Defense Agency. The consulting firms, Schneider EC Planning and Management Services, Ebasco Services Incorporated, HMM Associates, Impell Corporation, and Stone and Webster Engineering Corporation are recognized experts in the emergency planning field. Collectively, they have successfully developed over 71 plans for various State and local governments. In fact, Schneider EC is under contract to FEMA to manage the FEMA National Emergency Training Center.

Collectively, these plans and procedures describe and define a total program of response by the State of Massachusetts and the six towns within the Seabrook Station EPZ to an incident at the station. These plans were developed to meet the guidelines of NUREG-0654 and have been reviewed twice by FEMA to ascertain compliance with 0654. Subsequent to the development and review of these documents, the Commonwealth of Massachusetts seceded from Seabrook Emergency Planning (not, however, from Radiological Planning altogether, e.g., Pilgrim and Yankee Rowe) and did not formally submit the plans to NRC/FEMA for approval.

The State and local governments, in developing these plans, obviously had the confidence that they could implement them and had the intention to do so in the event of an incident at Seabrook. In fact, the Massachusetts State Plan and NIAT Handbook referenced above are presently being used and have been exercised in conjunction with emergency preparedness at the other two nuclear power stations in the Commonwealth of Massachusetts.

New Hampshire Yankee feels, and has no reason to believe otherwise, that presently, if an incident occurred at Seabrook, the State and local governments would respond using the personnel and resources of the subject plans and procedures (as well as those available from the Federal Response Plan) and that this response would be adequate to protect the health and safety of the Massachusetts general public.

This belief stems also from the fact that Seabrook has an excellent onsite Emergency Organization trained to respond to incidents at the Station. This record is reflected in a variety of documents, including the SSER, several NRC appraised reports, and the Exercise report. (Inspection Report Nos. 50-443/85-32, 50-443/86-10, 50-443/86-18, 50-443/86-30.) These reports indicate that there currently exists "an adequate planning basis for an acceptable state of onsite emergency preparedness, and meets the requirements of 10CFR50 and Appendix E thereto for issuance of a license authorizing fuel loading and operation up to 5% of rated power." The exercise report further states that "the licensee's emergency response actions demonstrated during the exercise were adequate to provide appropriate protective measures for the health and safety of the public." The onsite organization has proven itself not only capable of onsite response but also in implementing those key elements of offsite Emergency Preparedness necessary to integrate with the State/local response described above. Those key elements include:

1. Arrangements for requesting and using assistance resources; accommodation of State/local representatives at EOF; identification of other organizations to augment response.
2. Notification of State/local response organizations, and the general public.
3. Communications among principle response organizations and to the general public.
4. Adequate emergency response facilities to support the emergency response.
5. Adequate methods and equipment to assess and monitor actual/potential offsite consequences of radiological emergency.
6. Arrangements for medical services for contaminated injured individuals.
7. Radiological emergency response training for those who may be called upon to assist in the emergency.

The aggregate response described here is believed by New Hampshire Yankee to ensure the adequacy of Emergency Preparedness for the Massachusetts portion of the Seabrook EPZ.

Testimony of Victor Gilinsky
before the
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
May 7, 1987

Mr. Chairman and Members of the Subcommittee:

There are no easy or entirely satisfactory solutions to the current impasse over the inability of two plants to meet NRC emergency preparedness requirements because two states refuse to play the roles assigned to them.¹ But whatever the right answer is, it is definitely not the NRC's proposal (Fed. Reg., March 6) to water down the agency's regulations in this area of public protection.

Let me begin by dispelling some misconceptions. The immediate issue here is *not* who is in charge of approving nuclear plant operation -- the NRC or the states. The NRC is clearly in charge. The issue concerns the NRC's criteria for granting approvals.

The current criteria grew out of the 1979 TMI experience. The Commission decided that the Atomic Energy Act's standard of "adequate protection" had to embrace readiness to shelter or

¹The Shoreham emergency zone is entirely within New York State. Both the surrounding Suffolk County and New York State governments have refused to participate.

Seabrook is located in New Hampshire, about two miles from the Massachusetts border. The Massachusetts state and local governments have declined to participate in emergency preparedness in their portion of the ten-mile emergency zone around the plant.

evacuate people around an accident.² I might this view prevailed after very strong direction from this Committee.

The Commission believed such offsite readiness could not depend on improvisation. It required effective plans for state and local government actions, trained state and local staffs, and periodic exercises to make sure the plans would work. It is all very well to talk about federal preemption, but there was, and is, no federal alternative in the neighborhoods of power reactors to the police powers of local and state governments. Without their active involvement emergency plans around nuclear plants are meaningless.

Much has been made of the reference in the 1980 NRC Authorization Act to the possibility of using a utility plan in the absence of state plans. That would be fine if state and local governments would commit to it. But without such a commitment even the best utility plan is irrelevant to the adequacy of protection. And the present difficulty is precisely that the states in question refuse to participate.

The states' reasons are that adequate protection cannot be provided in the two particular cases. The NRC disagrees and is looking for a way out of the impasse. A responsible course (if no accommodation is possible) would be to seek redress in the courts, either to compel state performance or for the owners to obtain just compensation. There may also be reason to seek legislative change. Instead, the NRC has proposed dropping the current requirement for state and local government conduct of the emergency preparedness process. That would bring us back to the

²"It is clear," the Commission wrote in the statement of considerations accompanying the final rule in 1980, "...that onsite and offsite emergency preparedness as well as proper siting and engineering design features are needed to protect the health and safety of the public."

pre-TMI situation.

This course might have had some plausibility if the NRC had come forward with new safety information which justified relaxing emergency preparedness standards. But the NRC's March 6 Notice makes a point of stating that the new proposal is not based on new safety information that would suggest less need for this form of public protection. This is not surprising as recent event in fact suggest just the opposite.

Instead, the NRC has fallen back on lawyering. The agency argues the state and local refusals in the two cases were not contemplated at the time the present rule was approved. The unexpected refusals now create a "change in circumstances" justifying a relaxation of that requirement. That just isn't so, as a matter of law or safety policy.

We were quite clear in 1980 about the consequences of relying on state and local governments for the necessary increase in emergency preparedness. We realized these governments might not participate, and that the NRC could not force them to do so.³ We insisted, nevertheless, on "reasonable assurance that adequate protective measures can *and will* be taken..." It is its inability to make the "and will" finding in the absence of state participation that is now giving the Commission trouble in the two licensing cases.

The NRC rationalizes dropping public protection on the grounds that it will be temporary. Once the plants are running, the NRC says, the governors and their citizens will have "much to gain

³The 1980 statement of consideration makes this clear:

The Commission recognizes there is a possibility that the operation of some reactors may be affected by this rule through inaction of State and local governments or an inability to comply with these rules.

and nothing to lose" by cooperating. And it won't take them long to give in because the governors will want to reduce the risks to which their constituents are exposed.

What the Commission is saying is that it will hold the public around these plants hostage to the performance of governors. Until they fall in line, the Commission proposes to allow their constituents to be subjected to higher accident risks. That is not what one expects from an agency charged with protecting public safety. The NRC would be wise to turn away from this course promptly.

Ironically, the NRC amendment probably wouldn't do much to get the two plants running. More likely, it would bog down in a legal swamp. What the NRC proposed change would do is to fix a public impression that for the NRC plant operation comes before public safety. That is not going to enhance public support around the hundred or so operating plants where the emergency preparedness process is working reasonably smoothly.

TESTIMONY OF SUFFOLK COUNTY, NEW YORK
BEFORE THE SUBCOMMITTEE ON NUCLEAR REGULATION
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Presented by

Wayne Prospect, Chairman,
Energy and Environment Committee
Suffolk County Legislature

May 7, 1987

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear today on behalf of Suffolk County. The County commends the Subcommittee for holding this hearing on the important subject of emergency planning. Suffolk County has been deeply involved in all aspects of emergency planning, because the Shoreham nuclear power plant is located within the County.

Suffolk County is opposed to the operation of Shoreham. We are supported by 80 percent of the public and by the State of New York. For us, Shoreham is a case, not a cause. Our goal is public safety -- not politics, not anti-nuclearism, and not dogma of any sort. With Brookhaven National Laboratory in the County, we have lived with the atom for decades and have no ax to grind.

Emergency preparedness is especially important on Long Island, because there are only three roads on which hundreds of thousands of people would have to try to evacuate westwardly in case of an accident at Shoreham. In fact, scientific surveys

show that far more than one million people would seek to evacuate to safety -- that is, people who live beyond as well as within 10 miles of Shoreham. These surveys corroborate the TMI experience, where 2,500 people were advised to evacuate and 144,000 actually did. A large-scale evacuation would mean gridlock on Long Island's limited roads -- what the Suffolk County Police Commissioner called an "immobilized evacuation." Indeed, people would be forced to absorb the very radiation from which they sought to escape.

As a result, Suffolk County has taken the emergency preparedness issue seriously, and has participated exhaustively in emergency planning. We have learned from Three Mile Island -- and were reminded by Chernobyl -- that it was a mistake for a nuclear power plant to be built on Long Island. The need now is to correct the mistake by keeping Shoreham closed; not to compound it by operating the plant.

The continuing fight over Shoreham cannot be rationally explained. It is simply an act of blind zealousness by LILCO -- Shoreham's owner -- to get its way. Indeed, Shoreham is unwanted: 80 percent of the public and all affected State and local governments oppose the plant. Shoreham is unsafe: safe evacuation from a Shoreham accident would be impossible. Shoreham is unneeded: the electric power capacity of Shoreham is

unnneeded until the mid-1990s, and other generating alternatives can then provide the capacity. Therefore, in any rational environment, Shoreham would have long ago been abandoned by LILCO. The ensuing economic issues would have been worked out within the institutions of New York State, as the County proposed as early as 1983.

The Shoreham battle rages also because the NRC is unwilling to be an impartial adjudicator and to rule, as the law requires, that Shoreham cannot operate. Instead, the NRC is LILCO's alter ego -- playing the role of LILCO's advocate, bending the rules to LILCO's advantage, and shaping the facts to fit LILCO's case. To this day, the NRC refuses to accept the fact that significant numbers of people beyond 10 miles of Shoreham would evacuate. The Commission repeatedly embraces fictions to rationalize LILCO's position.

The NRC's most recent act of advocacy for LILCO is its proposed change in emergency planning rules. In essence, the NRC's proposal is a gambit to try to defeat Suffolk County's opposition to Shoreham. The NRC claims no safety reason for the rule, only that it is a change in policy. What really is this change?

First, it is a change away from public safety; a retreat from the lesson of Three Mile Island; and a denial of everyone's knowledge that nuclear power plants should not operate where the public will not be protected. The proposed rule requires less State and local government emergency preparedness in 1987 than was required in 1979 before the TMI accident. Given Chernobyl, the proposal insults the public's intelligence.

Second, the proposal is an act of bureaucratic arrogance. How can the NRC justify the intrusion upon the lawful exercise of police powers by State and local governments? The NRC does not seek to compel State and local government emergency responses where these governments find they cannot protect the public, because the NRC knows it cannot constitutionally do that. Instead, the NRC invents a fiction and pretends that these governments would use the very utility emergency plan that the governments have found to be unworkable. By pretending in this way, the NRC is wishing into existence State and local government plans that simply are not and will not be there. The NRC's fiction is a fraud. The Suffolk County government would never use LILCO's plan. We have found it to be unworkable and a threat to the public's safety.

The NRC bases its proposal on "equity and fairness" -- that is, on the NRC's presumed economic judgment. But, there is no economic analysis accompanying the proposed rule, no assessment of the economic aspects of the Shoreham situation, no quantification of safety costs versus economic costs; there is not even a straightforward articulation of what the relevant equities are. Indeed, to any reasonable person, the NRC's proposed rule change is just something the Commission contrived in order to try to promote the licensing of the Shoreham plant.

The Shoreham controversy is no reason for the NRC to change the rules, because Shoreham is a true reflection of how the federal system is supposed to work and why the present rules are sound. Despite the excessive rhetoric that Shoreham's owner, the Long Island Lighting Company, levels against us as a strategy to seek sympathy for itself, the record is clear that Suffolk County has acted lawfully and rationally. The courts have so ruled, and the NRC should accept this fact. In 1980, when the emergency planning regulations were issued, the NRC was more forthright: it recognized that State and local governments have the "primary responsibility" to protect their public.

The Shoreham controversy can be boiled down to one fact: Shoreham was built at a place where a nuclear power plant does not belong. It was constructed before the TMI accident and thus

before the utilities, the public, and federal, state, and local governments made emergency planning a high priority. The decision to build Shoreham where a nuclear plant does not belong was LILCO's and the AEC's -- both of which insisted that the emergency planning issue should not be considered before the plant was built, but only after substantial construction. As early as 1970, a Long Island citizens organization which was a party in the NRC's Shoreham proceeding sought to force LILCO and the AEC to consider the fact that safe evacuation from a nuclear accident was impossible at Shoreham. LILCO and the AEC refused to look at the issue.

Shoreham is located on the north shore of Long Island about one-third of the distance from Montauk Point, the east end of the island. The population is dense, and there are only three east-west roads on which people could travel if they had to evacuate from a nuclear accident at Shoreham. Some of the people -- particularly those living east of Shoreham -- would actually have to drive toward the plant and its radioactive plume in order to evacuate. The result of the conditions prevalent in Long Island is that if there were an attempt to evacuate from a Shoreham accident, there would be gridlock on the roads. Tragedy would ensue because the people who were directed to flee to protect themselves and their families would be forced to sit helplessly and absorb the very radiation they sought to escape.

The government of Suffolk County found this to be fact in February 1983, following a \$600,000 emergency planning study by a team of nationally recognized experts and the preparation by the experts of a draft County emergency plan for Shoreham. The County held eight days of public hearings where large numbers of experts and members of the public testified and 1600 pages of transcript were compiled. The County Legislature then travelled to Middletown, Pennsylvania, to meet with public officials there and learn practical lessons about the TMI accident.

Having determined that safe evacuation of Suffolk County's citizens is impossible, the County government had only two choices: adopt an emergency plan for Shoreham and pretend the public would be protected; or tell the public the truth and resolve not to adopt a plan. The County did the latter, because to do otherwise would have endangered the welfare of our citizens and betrayed our responsibility as elected government officials.

Suffolk County's decision not to adopt or implement an emergency plan for Shoreham was challenged by LILCO in both federal and state courts. The County won the lawsuits. The courts ruled that Suffolk County's actions were lawful and rational.

Since that time, LILCO and the NRC have sought every gimmick and devise to evade the impact of these court decisions and try to license Shoreham. There have been years of hearings before the NRC and much time and money spent by all parties simply because LILCO and the NRC refuse to accept the fact that Shoreham should not operate for sound and lawful reasons. Every new far-fetched scheme of LILCO and the NRC to facilitate a license for Shoreham causes more legal battles. Each battle damages the NRC greatly because the Commission's credibility as a fair regulator concerned with public safety is continually being undermined by the coziness of the NRC staff with LILCO and the Commission's advocacy of LILCO's cause. Whenever LILCO strikes out, the Commission is always there to give LILCO one more chance.

The proposed NRC rule is the latest gimmick of the NRC to try to license Shoreham. The proposal is fatally flawed. We will oppose it before the NRC and, if necessary, we will fight it in court.

Equally important is that as a practical matter, the NRC's proposal will have the effect of causing local governments to doubt even more the NRC's commitment to safety and its competence to regulate. Without the NRC having the legitimacy that can be established only by public support and confidence, the Commission's zeal to help the utilities it regulates will

backfire. Local governments will not be intimidated by the NRC. With the NRC abdicating its responsibilities, local governments will look elsewhere for radiological safety protection -- namely to the states. This, in turn, will weaken the federal government's grip on nuclear regulation and provide incentives for a further dispersion of nuclear regulatory authority away from the federal government and to the states.

The NRC has to be protected from itself. The Commission's zeal to promote the licensing of Shoreham, despite the threat Shoreham poses to public safety, despite the rulings of federal and state courts, and despite the soundness of the County's actions, has become a danger to good government.

Suffolk County believes that in 1980, when the lessons of TMI were still fresh, neither Congress nor the NRC would have tolerated a nuclear power plant being licensed (1) where the affected County and State governments thoroughly participated in emergency planning, (2) where they determined in good faith that the public could not be adequately protected, and (3) where they won the approval of their determinations in both federal and state courts as is the case today with Shoreham. Only historical revisionists could claim otherwise.

Indeed, in June 1980, the Commission's own Staff wrote in a memorandum to the Commission: "The staff recognizes this potential for a third party defacto veto power. The Commission is also aware of this." (SECY-80-275, Enclosure L) Thus, the Staff concluded:

The decision of how the public should be protected has been made, i.e., either emergency planning and preparedness is adequate or a plant must be placed in a condition of safe shutdown. The State and local authorities have the responsibility to determine which option is in the best interest of their citizens. (SECY-80-275, Enclosure I)

In 1979, the Presidential Kemeny Commission concluded that to protect the public there must be a change in "attitude" at the NRC. There has been a change in attitude, but the change is for the worse. From having been in NRC proceedings since 1979, Suffolk County can say that the Commission today shows ever increasing indifference to the public's safety. Unfortunate as this is, Suffolk County is in a fight with the NRC over a safety matter on which the Commission has no legitimate reason to oppose us. The Commission and the NRC staff have become partisans for LILCO, as much the advocate of LILCO's cause as is LILCO itself. The County expects to win the fight and to keep Shoreham closed. In doing this, we are not only performing our job but the NRC's rightful job too.

The people of Suffolk County appreciate the interest that this Subcommittee has shown in holding today's hearing. We respectfully encourage you to guide the NRC in directions that enhance public safety -- directions that put behind us the folly of the NRC's proposed rule.

A Narrative Chronology of Relevant Aspects Of the Emergency Planning Controversy at Shoreham

The reason Shoreham cannot operate is that following the accident at Three Mile Island and the investigations of various panels, including the Presidential Kemeny Commission, Congress directed the NRC to license a nuclear power plant only if there is an implementable local, State, or utility emergency plan for the plant. The NRC's present rules reflect this.

In the case of Shoreham, there is no implementable plan, because Suffolk County resolved that it would not adopt or implement an emergency plan for Shoreham. This action of Suffolk County has been upheld as lawful and rational by the United States District Court, the U.S. Court of Appeals, and the New York State Court of Appeals. Similarly, there is no implementable State plan for Shoreham, because the State has independently concluded that safe evacuation is not possible. Finally, there is no implementable utility plan, because the New York State Supreme Court and the Appellate Division have held LILCO's utility plan to be illegal and not implementable.

Therefore, under the law -- and particularly under the NRC's regulations -- the absence of an implementable emergency plan means the NRC must deny LILCO a license to operate Shoreham.

The NRC's proposed rule is intended to evade this legal result. In essence, the proposed rule admits that there is no implementable emergency plan for Shoreham. Still, the rule purports to permit licensing the plant on the basis of a fiction: the rule presumes that if Shoreham is licensed without there being an implementable emergency plan, such a plan will suddenly appear when there is a nuclear accident; and, the fiction goes on, the State and County will implement the fictional plan in partnership with LILCO, despite the State and County having concluded that the plan is deficient, unworkable, and a threat to the public safety. (Attachment 1 is the June 23, 1986 statement of the former Suffolk County Executive, the January 16, 1987 letter of the present Suffolk County Executive, and the June 30, 1986 statement of the Governor of New York State, which explain why these governments would never implement LILCO's emergency plan or work in partnership with LILCO in the event of a nuclear accident.)

-- In 1970, when LILCO had applied for a permit to construct Shoreham, a local citizens' organization, the Lloyd Harbor Study Group, intervened in the AEC proceeding and asked

the AEC to examine the feasibility of evacuation in the event of a nuclear accident at Shoreham. The Study Group contended that safe evacuation was impossible. LILCO argued against looking into the evacuation issue at that time. In fact, LILCO claimed that the AEC should not examine the evacuation issue until after Shoreham was constructed. The AEC agreed with LILCO and ruled that emergency planning could not be examined until years later "at the operating license stage." (Attachment 2 is a statement of excerpts from the AEC's Shoreham proceeding.)

-- In 1977, when LILCO applied for an operating license, Suffolk County intervened. The County specifically raised the issue of whether safe evacuation was possible. Again, LILCO argued against the NRC examining this issue. The NRC ruled that to a limited extent the issue could be considered. The Shoreham emergency planning issue was pending when the Three Mile Island accident occurred.

-- In 1979, the Three Mile Island accident changed everything. The Congress, the Presidential Kemeny Commission, and the NRC's special investigation of the TMI accident caused the NRC to promulgate a new emergency planning rule: a nuclear plant could be licensed only if there were an implementable emergency plan for the plant. The NRC sent teams of staff members around the country imploring State and local governments

to do a thorough job of emergency planning lest their citizens be endangered. The NRC recognized, however, that if plans were not prepared, the nuclear plants would not operate. Congress also recognized this, and in the Congressional debates it was reasoned that states would not fail to support a plant and prepare a plan for frivolous reasons because they would then deprive themselves of electric power generating resources.

-- Suffolk County took the lesson of the Three Mile Island accident and the words of the Congress, the Kemeny Commission, and the NRC seriously and at face value. The County realized that it was not doing enough to plan for an emergency at Shoreham. Throughout 1981, concern mounted among members of the public and civic organizations that the County's planning effort did not take sufficient account of the vulnerability of persons residing to the east of the plant. These people would have to evacuate toward the plant. Also, concern was raised that the County was not adequately considering the lessons of Three Mile Island. At the end of 1981 and beginning of 1982, Suffolk County resolved to upgrade its emergency planning efforts.

-- In March 1982, Suffolk County retained a team of nationally recognized experts to prepare a draft County emergency plan for Shoreham. The team was given free rein to do the "best possible" plan. (The composition of the team is set forth at pages 9-10 of Attachment 4.)

-- Nine months later, in December 1983, the experts delivered their draft County emergency plan and the accompanying analyses, studies, and surveys. Suffolk County spent \$600,000 on the experts who prepared this draft plan. (Attachment 3 is the Overview chapter of the three volume draft county plan and supporting materials.)

-- In January 1983, the County Legislature studied the draft emergency plan and held eight days of public hearings at which scores of experts testified and hundreds of members of the public presented their views. A transcript of 1600 pages was compiled during the hearings. After that, the Legislature travelled to Middletown, Pennsylvania, to meet with local government officials and members of the public who experienced the TMI accident. The County Executive and Legislature then reviewed the materials before them until mid-February. In mid-February, the Executive and Legislature decided for themselves whether or not to adopt the draft County emergency plan. The Executive recommended against adopting the plan, and the

Legislature -- by a 15-1 vote -- decided not to adopt the plan. The vote was non-partisan: supported by Republicans, Democrats, and Conservatives. It was also supported widely by the public. (Attachment 4 is the report of the County Executive recommending against adopting the draft plan. Attachment 5 is Resolution 111-1983 of the County Legislature that resolves not to adopt or implement an emergency plan for Shoreham.)

-- In February 1983, immediately after resolving not to adopt or implement an emergency plan for Shoreham, Suffolk County informed the NRC of the County's actions. The County explained that under the NRC's regulations, Shoreham could not operate and that the Shoreham licensing proceedings should accordingly be terminated. LILCO argued against terminating the proceedings, and by a 3-2 vote the NRC Commissioners agreed with LILCO and ordered hearings on the adequacy of LILCO's plan. Had LILCO and the NRC agreed with Suffolk County, the Shoreham issue would have been decided long ago -- and the economic issues related to Shoreham's abandonment would have been more easily resolved. (LILCO had then spent slightly more than \$3 billion on Shoreham; the cost now is close to \$5 billion.)

-- In May 1983, Governor Cuomo established a blue ribbon Commission, the Marburger Commission, to examine the Shoreham controversy and recommend what action New York State should take.

Following a six-month investigation and several hearings, the Marburger Commission found that Suffolk County's studies and conclusions were reasonable. (Attachment 6 contains the two statements of the Suffolk County Executive before the Marburger Commission. Attachment 7 contains the General Conclusions of the Marburger Commission's Report to the Governor.) In late December 1983, Governor Cuomo announced his support for Suffolk County, and in January 1984, the State intervened on Suffolk County's behalf in the NRC's Shoreham licensing proceedings.

-- From mid-1984 to the present, there have been a variety of hearings before the NRC's licensing boards and appeal boards. The proceedings at the NRC are complex and complicated. LILCO constantly complains about the hearings, but in every respect the complaints of LILCO are due to LILCO's own behavior. In short, LILCO repeatedly has requested the NRC to act in ways that are contrary to the NRC's regulations or are at best questionable. In each instance, Suffolk County and New York State have objected, and the factual disputes between LILCO and the County and State have been the subject of hearings. It is disingenuous for LILCO to complain about complex and lengthy hearings that are caused by LILCO's own unsustainable proposals.

-- At present, hearings are being held by the NRC's licensing board on the results of LILCO's February 1986 exercise of the company's own offsite emergency plan. The 1986 exercise was a debacle. It was conducted over the objections of New York State and Suffolk County to evaluate the very LILCO emergency plan which had been ruled illegal by the New York State Supreme Court. The exercise was conducted also after the NRC's licensing board denied LILCO a license to operate Shoreham. This was the first time an exercise had been held of an illegal emergency plan for a nuclear plant that had been denied a license to operate. Suffolk County tried to protect its interests by passing a law that disapproved the exercise. The federal district court enjoined the law.

-- The scenario for LILCO's February 1986 exercise was written by LILCO itself, and the elements of the scenario were negotiated with FEMA, the agency that graded the exercise. The scenario shaped the exercise so as to make sure that only actions that would help LILCO make its case before the NRC were tested. Significantly, even after having written its own scenario, LILCO failed the exercise. When FEMA's Regional Director wanted to write in FEMA's report that LILCO's plan does not protect the public's safety, he was told to delete those words or resign. He resigned, and FEMA left out the words.

Today, the NRC's Shoreham licensing proceedings are still in progress. The reason is twofold: First, the NRC does not have the courage to face facts and rule that Shoreham cannot lawfully be licensed; instead, the NRC keeps coming up with new rationalizations to give LILCO more chances to concoct a device by which to license the plant; and the NRC's Staff is using the hearing process to keep LILCO's hopes alive rather than to present an impartial position. (Attachment 8 is a letter from Suffolk County to the NRC requesting that the Staff be disqualified from participating further in the Shoreham licensing proceedings.)

Second, LILCO in late 1983 made a public-be-damned commitment to get Shoreham on line. LILCO grossly politicized the Shoreham controversy. LILCO hired the President's former aid, Lyn Nofziger, and has paid him a total of more than \$780,000 for "political consulting." And, LILCO's Chairman of the Board stated in February 1984 that LILCO was engaging in guerilla warfare against Suffolk County.

The essence of LILCO's effort has been the false claim that Shoreham is larger than life -- that if Shoreham does not operate, then nuclear power is doomed in America. LILCO's claim is nonsense. Shoreham properly is only a case, not a cause. Shoreham should not open because the public cannot be evacuated

or otherwise protected in an emergency. The plant is not safe and does not comply with legal requirements. The siting on Long Island was a mistake. It is just that simple. Good government does not compound the original mistake by making the further mistake of operating Shoreham.

The NRC's proposed rule is based on a distorted view of the role of local governments in emergency planning and on a distortion of what has occurred in the Shoreham controversy. The Shoreham case is not an instance of local government being obstructionist, or of local government refusing to participate in emergency planning. To the contrary, Shoreham is a case of extensive local government participation. Indeed, Suffolk County not only thoroughly analyzed emergency planning issues on Long Island, but the County hired experts who prepared a draft emergency plan, held hearings, and deliberated thoughtfully. Only then did the County come to the rational conclusion that it would not lull its citizens into false security by adopting a purported emergency plan. The NRC should respect the County's actions. Instead, the NRC has declared war against the County. This is not how our federal system was designed to work. We are concerned, and we think Congress should be concerned too.

SCIENTISTS AND ENGINEERS FOR SECURE ENERGY

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Miro M. Todorovich - Executive Director

Testimony Before the Subcommittee on Nuclear Regulation Committee on the Environment and Public Works United States Senate

The Honorable John B. Breaux, Chairman

Senator from Louisiana

by

Richard Wilson
Mallinckrodt Professor of Physics
Harvard University

May 7th 1987

Mr. Chairman, Senators, ladies and gentlemen. It is a pleasure to be invited to testify before this committee on behalf of a public interest group, Scientists and Engineers for Secure Energy (SE2), which I have been a member of since its inception.

My primary field of research is in elementary particle physics. If I were asking you to spend money, it would be to support the superconducting, super collider (SSC), but I am asking you to save money and lives by considering a emergency planning responsibly and thoughtfully. In addition to my knowledge of basic physics, I have some knowledge in nuclear reactor safety, in understanding risks, in managing risks, and in emergency planning in particular.

My first involvement with emergency planning was in 1972. As an advisor to the Attorney General of Maine, I verified personally that the state of Maine had an adequate plan to evacuate the area around Maine Yankee nuclear power plant, should that be necessary.

I have been an occasional Consultant to the Advisory Committee on Reactor Safeguards for 10 years, and commented upon the present rules for emergency planning in 1980 in that capacity. I also, in 1979-1980, was Chairman of a committee, appointed by the Governor of the Commonwealth of Massachusetts, to recommend action that he should take in response to the accident at Three Mile Island. I was appointed

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SE2

by the President of the American Physical Society to be Chairman of a study committee on the radiological consequences of severe nuclear power accidents which reported to the Nuclear Regulatory Commission on or about February 16th 1985. I have written about nuclear power; about accidents; and about risks, most recently in the April 17th 1987 issue of *Science*.

My name is on a list, prepared by the Scientists Institute of Public Information (SIPI), of persons who are willing to talk to the press about radiation and nuclear power. As a result, I was asked about the Chernobyl accident by reporters from the major newspapers as early as April 28th 1986. In August 1986, I went to Vienna to attend the "Post Accident Review Meeting" held by the International Atomic Energy Agency (IAEA), where the Soviets frankly discussed the accident at the V.I. Lenin power plant at Chernobyl and its consequences. In February of this year I was invited by the Soviet Academy of Sciences to visit Moscow, and then to visit the V.I. Lenin Nuclear Power plant near Chernobyl. I went with my Geiger counter, and confirmed a few of their measurements.

At the meeting in Vienna, at an informal meeting in Rome in November, at Moscow, Kiev, and at Chernobyl itself, I had the opportunity to discuss the accident, the evacuation, the radioactivity measurements, and ways of describing the effects on public health, with many Ukrainian and Russian authorities. I have met in particular, Academician Leonid Ilyin, Vice President of the Soviet Academy of Medical Sciences and director of the Institute of Medical Physics, who spent 3 weeks in Chernobyl in April and May advising on evacuation; Dr. Angelina Guskova, Director of Moscow Hospital number 6, who was in charge of the care of the 200 odd victims of acute radiation sickness; Professor Pavlovski, Institute of Medical Physics, Moscow, who has correlated, and is correlating, all the measurements of radiation dose both internal and external; with Dr. Lev Michaelovich Khitrov, oceanographer at the Vernatsky Institute of Geochemistry who has been measuring the radioactivity in the river waters; with General Kimstych, commander of the Pripyat Fire Brigade from which so many brave men died; with Chief Engineer Komarov, now in charge of the Chernobyl district facility including the power plant; with Dr. Nikolai Fedorovich Lukonin, the Minister of Atomic Energy, Dr. Antonik Petrosyants, the Chairman of the State Committee on Atomic Energy, my old friends Academician Andrei Sakharov, and Academician Sergei Petrovich Kapitsa, Academician Eugenii P. Velikhov, Vice President of the Soviet Academy of Sciences, and scientific advisor to General Secretary of the Communist Party of the Soviet Union, Mikhail Gorbachov, and Mr. Gorbachov himself. Since I met many of these people more than once, I was enabled to ask

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supplementary questions when they were appropriate.

I understand that this committee wants to understand whether the present laws and rules about emergency planning are sufficient to give reasonable protection to the public in the event of a severe nuclear power accident. Since this reconsideration is obviously based, in part, upon the accident at Chernobyl, USSR, a year ago, I suggest that anyone who wants to really understand when an evacuation is appropriate, and whether it is possible to evacuate, should invite someone from the USSR who is knowledgeable to come and talk to them. I suggest Academician Ilyin, who would almost certainly come if someone could promise him that the *Washington Post* would not distort his calculations as they did in August of 1986. In his absence I will do what I can. I would like to bring to your attention fourteen separate points that I will discuss in turn.

(1) In all human activities it is important to be clear what one is aiming at. The aim of evacuation should be to prevent, in so far as possible, a dose that leads to acute radiation sickness (a dose greater than 100 Rems), with a probability of death due to radiation if the dose exceeds 300 Rem. Smaller doses, which might lead to an increased risk of cancer (less than 1% chance of dying of cancer in a lifetime), are of less concern, and certainly less short term concern. It is important not to take drastic actions for these smaller risks, which might cause great dislocation and therefore greater risks than the ones being avoided.

(2) The International Commission on Radiological Protection, (ICRP), has made a recommendation that persons be evacuated from an area if it is estimated that their dose, integrated over several months, would otherwise exceed 50 Rems. The Soviets adopt this idea, with a 25/75 modification. If the dose is expected to reach 25 Rems, evacuation should be considered. If the dose is expected to reach 75 Rems, an evacuation plan should already be implemented. FEMA/NRC/EPA use an absurdly low level of 5 Rems for some purposes, and 1 Rem for others. As a radiation worker my allowed dose is 5 Rems in a year. I consider it to be a waste of time to evacuate to prevent exposure at levels I can encounter at work; moreover, since evacuation itself has its hazards, I believe it is more dangerous to evacuate at those levels than to stay in place.

(3) At Chernobyl, the evacuation plan was admittedly *ad hoc*, and delayed, but it accomplished the above aims. No one outside the plant got acute radiation sickness. The Chernobyl accident was about as severe as any we had imagined to be possible: 50 % of the iodine was released; 12% of the cesium, and 3% of the solid and non-volatile

materials were also released. The 45,000 people evacuated from the town of Pripyat got an average dose commitment of 3 Rems, less than a radiation worker's for a year, and those in the country, who were under the first plume, and also were evacuated later, got 43 Rems. Although 43 Rems is above dose limits recommended by ICRP for anyone except an astronaut or emergency worker, it adds only 0.5% to the probability of dying of cancer in a lifetime. This compares to a 16% probability of dying of cancer from all other causes, and 10% for cigarette smoking alone. Although public opinion is changing, no one has yet suggested compulsory evacuation from a smoke filled committee room at a political convention, or a smoke filled restaurant.

The Soviets prefer to talk about fractional increases like these, rather than absolute numbers. Nonetheless, the *Chicago Tribune* recently quoted Minister Lukonin as predicting that less than 500 cancers will be produced among the evacuated population of 135,000 people. I believe that even this is high.

For the persons living in the Ukraine and Byelorussia, but not in the evacuation zone, we also have estimates of doses and dose commitments. One way of expressing these is by direct comparison to radiation doses in other situations. By this means, we avoid the uncertainty of speculating about the effects of low doses of radiation. Anyone in Byelorussia or the Ukraine will receive less of an increased dose from the Chernobyl accident than one of you would get in moving for ten years from Washington, D.C. to the mile high city, Denver; there, cosmic rays are more intense and there is more radioactivity in the soil. Persons in other parts of Europe will receive less still.

(4) The Soviets have publicly admitted confusion and bad behavior before, during, and after the evacuation. A Moscow TV documentary states that 1 out of the 4,000 (sic) bus drivers refused to go into the high radiation area; some plant personnel ran away from their jobs; some looting was done after the evacuation. This must be expected in any society, and should not affect the evacuation decision, but evacuation plans must take this expectation into account.

(5) The Soviets recommend that clear, one-man responsibility be established for evacuation and matters attendant thereto during an accident. To this they attribute their success. In the Soviet Union, just as in the United States, it is the local authority which is responsible for the general health and safety of its residents, in their case the government of the Ukraine. Nonetheless, the local authority willingly accepted the advice and help of the most competent people that the Union could send them: Vice President Boris Scherbina took charge after a day, replaced later by Mr. Silyaev; Scientists Velikhov,

Legasov, Ilyin, Guskova, Khitrov, Pavlowski, and hosts of others, dropped what they were doing to help. These were not mere bureaucrats, but leading scientists. I would hope that in an emergency, the President would call upon the best people to help, and I am sure that they would respond.

They make a number of other small, but important recommendations. It is useful to issue potassium iodide pills, if only to convince the populace that something is being done. They recommend not making them generally available before an emergency, to avoid misuse, and stress that care must be taken not to issue them to pregnant women. Others, such as Nobel Laureate Rosalyn Yalow, stress that the pills must be taken before the iodine exposure, or they may make matters worse.

(6) In the USSR, moving people is harder than in the USA. For example, the road from Kiev to Pripjat has only two lanes, and the column of 1,100 busses arriving to carryout the evacuation was 12 miles long. Nonetheless, the evacuation of Pripjat itself took only 2 hours. With our many wide roads, and better facilities, evacuation should be easier and quicker. With a modicum of advanced planning, this can be better still. Police in the USA know how to control traffic; and experience of evacuations from floods and overturned tank cars show that specific training is not necessary. In an extreme case, 1,000,000 people leave about one square mile of the city of London every working day within less than 2 hours. On September 1, 1939, I was among 2,000,000 children who evacuated the city and county of London in a few hours; I by bicycle, others by bus and train.

We must also be aware that we have considerably more monitoring equipment in place around an operating nuclear power plant than do the Soviets. For example, we measure the winds at all times; the nearest wind tower to Chernobyl was at Kiev airport, 60 miles away. The plots of radiation levels at Pripjat started only 2 hours after the accident; those in communities further away, a day later; those for places upwind (like Kiev) after a few days. These were adequate for their decisions. Our problem will be different; not to decide which measurements to take, but which of the thousands of measurements to ignore as irrelevant.

(7) With this experience in front of us, I have developed some strong opinions about emergency plans which I want to share with you. Advanced planning for emergencies should concentrate on how to get the necessary and proper information, such as radiation levels or the status of the reactor, to the person with authority, so that he can make a proper decision on when, or whether, to evacuate. The person in

authority will have a surfeit of information so that he must have a clear procedure for deciding what is relevant. In this, there is no substitute for the clear understanding of a competent, broadly trained, man or woman.

(8) Emergency planning should not be synonymous with evacuation planning. However, all too often it is assumed that, in an emergency, evacuation will be mandatory. There are other actions, less drastic than evacuation, which are often more appropriate. For example, it has been calculated, using the deliberately pessimistic calculational procedure of 10 years ago, that even if radiation release is known to be imminent, that it is better to wait indoors (sheltering) rather than evacuate immediately, for all distances greater than 3 miles. A later evacuation, for those down wind, might still be decided upon, but would then be better and safer than a more general early evacuation.

The conclusion that staying indoors gives excellent sheltering was well born out at Chernobyl. The modern brick apartment buildings of Pripyat gave at least a factor of 4 reduction by shielding. Measurements of radiation levels around Chernobyl today show this effect; radiation levels indoors are 5 to 10 times smaller than those out of doors. For example, I measured the radiation level in the parking lot of the power plant at Chernobyl to be 0.4 Millirads per hour. Inside the power plant buildings (in the control room, the turbine room and the lunch room), it ranged from 0.05 to 0.07 Millirads per hour.

(9) It is not possible to divorce discussions of emergency plans from estimates of the probability of the emergency. No one plans for the direct hit of a million ton meteor on the USA; yet it is more probable than many nuclear accidents that are seriously considered.

The reactors at Chernobyl, the RBMK 1000 type, are very different from, and much less safe than, the light water reactors with containments: the VVER-1000, the PWR, and the BWR. The reactors of the RBMK design have an inherent instability, caused by the positive void coefficient, and they have no vessel to contain the radionuclides released in a severe accident. The probability of a large release of radioactivity at a PWR is several orders of magnitude less than the probability of another accident at an RBMK reactor, even with the excellent palliatives that the Soviets have added so rapidly.

(10) Although all safety analysts agree that there remains a small probability of a severe accident at a US light water reactor, the chance of a prompt criticality as happened at Chernobyl is remote.

Therefore, there will be a lot more warning for any emergency action, including evacuation if that is decided upon.

It has long been recognized by Congress and the Nuclear Regulatory Commission that absolute safety is impossible and the unreasoning quest for it is undesirable. The Nuclear Regulatory Commission has spent a lot of time over the last 10 years developing quantitative safety goals. These safety goals are designed to ensure that, on average, nuclear power will be considerably safer than the technologies it replaces. A recent useful discussion of these safety goals can be found in an article by Professor David Okrent in the April 17th issue of *Science* to which I already referred. It is interesting that the estimated probability of radioactive release from many US nuclear reactors (and from Shoreham and Seabrook, in particular) is sufficiently low that the safety goals can be met without any evacuation. This should not be used as a statement that plans are not desirable, but that excessive planning is not necessary and that pessimism is unwarranted.

(11) The emergency plans as presently being demanded by NRC and FEMA emphasise the wrong things. They emphasise evacuation rather than information transfer. In the United States people move quickly. In contrast, few people know, by looking at a nuclear power plant, when to evacuate. The emphasis should be on deciding what information is important, who needs it, who is to make the decisions and so forth.

It is in this information transfer that nuclear emergencies differ from other emergencies. It is important to note that the gathering of this information, and its initial digestion, is almost always the responsibility of the power plant operator in the first place. Provided the power plant operator does his job, and the state has a general emergency plan, the requirements should be met.

Overly detailed plans are likely to be ignored in an actual emergency. For example, the general emergency preparedness plans that existed in the Commonwealth of Massachusetts in 1979 contemplated informing a number of appropriate people that an emergency existed. The Governor was listed in the bottom right hand corner of the chart. No one had thought that as soon as the Governor has been informed, he must, of course, be on the top of any chart! I heard later, that after the 2 meter snowfall of January 1977 when the Commonwealth of Massachusetts closed all roads for a week, Governor Dukakis had in fact, ignored the chart.

(12) Emergency plans should be integrated with plans for

other emergencies. Unfortunately, this integration is becoming less, rather than more frequent, because of regulatory differences. The Commonwealth of Massachusetts used to have an integrated emergency plan, which in the opinion of the committee I chaired in 1980, was good. There are a number of situations where absolute protection of the public in an emergency is not possible. For example, there is no way there can be adequate warning, and evacuation, if a fully loaded 747 aircraft were to crash into Fenway Park in the middle of a baseball game. Yet this hazard cannot be truthfully claimed to be absolutely impossible. It is not even impossible that it would occur in the middle of a World Series game, though somewhat less likely.

There are three reasons why emergency plans should be integrated:

(a) Plans need practice. There are fortunately few nuclear emergencies, yet many emergencies of other technologies. By integrating the plans, the nuclear plans will get practice which they will otherwise not get. Practice in a simulated situation is no substitute for practice in a real emergency.

(b) The most important and most difficult state of mind to achieve is one with perspective. By integrating the plans, regulators and the public alike will gain perspective on the relative frequency of accidents in different technologies, and scarce resources of money, and more importantly competent personnel, will be more wisely allocated. I have on many occasions suggested that NRC become an Energy Regulatory Commission (ERC) with as much authority over the much more probable, and in some cases equally devastating, dam failures and other energy related disasters. Then FEMA/ERC and the various state Governors, or appropriate public authorities, would have to contemplate the impossibility of warning the public in advance of many emergencies that can cause fatalities. These include a dam failure caused by an earthquake. (In 1979 I lectured in Zurich about emergency plans. My audience of newspaper men laughed: "When the siren goes off in our town, we must all be on top of the hill within 9 minutes. Of course you can evacuate fast if you want to!")

(c) If the plans are integrated, the civil authorities can protect the public from emergencies with no legislative, or budgetary, attention using the facilities developed for those emergencies in the public eye. In this connection, I note with approval, that an amendment to the Superfund legislation requires states to have plans for emergencies caused by spills of toxic chemicals. These, like nuclear emergencies, must be integrated with the others.

(13) Emergency plans should not automatically mean evacuation plans as they seem to now. There are many appropriate actions short of evacuation. If emergency plans automatically are to mean evacuation plans, I strongly oppose making any compulsory detailed plan in advance for any area beyond a radius of 1 to 3 miles (depending upon details of reactor design). If they are to be general plans, including possible evacuation with details to be decided *ad hoc* later, a radius of 10 miles is not unreasonable. Even here, however, the plans should be commensurate with plans for other hazards of similar magnitude.

(14) I am not a legal expert. But the procedure for licensing reactors is not merely a legal matter. There are two major steps: the construction permit hearing, and the operating license hearing. It was the obvious intention that generic matters, and matters concerning the suitability of the site, be decided at the first hearing, and that the second be held on whether the power station is built according to design, and whether any changes have any untoward effect upon safety. The states have a special status in these hearings, neither a supporter nor an opposer, and it is possible for them to raise a number of issues here, or at local state hearings. It is certainly possible and probably appropriately possible, for a state to reject a nuclear power plant because of a lack of need for power, although federal law preempts the radiation and safety issues. This was clearly stated by Chairman Glenn Seaborg in Vermont in 1971. Although a neighbouring state has less power, various agreements, some formal and some informal, make it unlikely that a state could go ahead with a power plant if a neighbouring state were adamantly opposed. But due process demands that such action be done in a timely fashion if the rights of those citizens who want the plant, and have been encouraged to pay for it, are to be protected.

For example, the construction permit hearings for Seabrook took place during a long period - 1975 -1979. The Commonwealth of Massachusetts could have made informal, but effective, representations to New Hampshire at that time that would have prevented construction. They did not. Now, under the guise of refusing to approve an emergency plan, the Governor of the Commonwealth is trying to block the operation. The words of his press release as he announced this are instructive. He stated his conviction that no adequate plan is possible. This is because a very severe accident, with large release, unusually unfavorable weather, and little warning, cannot be absolutely ruled out, even though the probability is miniscule, and less than the probability of the 747 crash. In other words, the objection is not on details, which would logically fall within the purview of an operating license hearing, but on matters that could have been known 10 years before! Not only could they have

been known 10 years ago, I personally testify that they were known to responsible officials of the Commonwealth at the appropriate times.

It is important to realise that the magnitude and potential consequences of a potential severe nuclear power accident have been known for a long time. Congress asked the Atomic Energy Commission to prepare a study before the Atomic Energy Act was passed. This study, WASH 740, was prepared by scientists at Brookhaven National Laboratory and gave estimates of casualties in the community and probabilities of these accidents. In 1975, a more detailed study, WASH 1400, became available under the chairmanship of Fermi prize winner Norman C. Rasmussen. The calculated probabilities of severe effects were smaller in the second study. Recent improvements in reactors, made as a result of Rasmussen's detailed study, and recent improvements in understanding since Three Mile Island, show that the probabilities of severe consequences are smaller than the experts thought they were in 1975, and much smaller than the anti-nuclear advocates claimed they were. You will remember that I testified before a committee of the House of Representative about this in June 1986.

I personally discussed these matters, 10 years ago, with Dr. Charles Henry Foster when he was Secretary of the Environment of the Commonwealth, with the power plant siting council, in whose formation I was asked to play a part, and with the Honorable Evelyn Murphy, a member of Governor Dukakis' first Cabinet who is now Lieutenant Governor. I also 10 years ago had a brief meeting with Governor Dukakis himself. Therefore, it cannot truthfully be said that these are issues of which the Commonwealth was unaware at the appropriate time. Nor, as is evident from the discussion above, can it properly be said that our knowledge of Chernobyl makes matters worse. It CAN be truthfully said, that it is now evident that reactors today, such as Seabrook, are safer than the experts thought they were 10 years ago, and much safer than the anti-nuclear advocates claimed they were. It is possible that the Governors of Massachusetts and New York are badly advised, but there is a clear abrogation of the rights of many of the citizens in such untimely opposition to Seabrook and Shoreham.

I have heard it said that the owners of the power plants are not acting for the health and safety of the people. They, of course, have additional responsibilities placed on them by society: to provide electricity for the consumers and to look after the investments of the stockholders and bondholders. The situation would be at once clarified if the Governors would hand to the power companies cashier's checks for the amount of money expended so far on the

power plants and offer to buy them at cost. Then, when they are offered what in any case they are due, the power company presidents would more obviously be able to make a balanced recommendation on the future of the plants. It would be interesting to find out what it would be.

The Nuclear Regulatory Commission has seen the problems which have arisen over the last five years, and has proposed to change the rule requiring participation in planning by local authorities, to prevent the untimely veto power which they had never intended to grant. I am glad to say also, that many leading articles in our national newspapers agreed with this proposed rule change. While I support this, I believe that a major revision of the emergency plans along the lines I have suggested would make them simpler, easier to understand, more general, and MUCH more protective of the health and safety of the public. Although, therefore, I hope that your committee will support the proposed NRC rule change as an urgent interim measure, I hope that it will also press for the further rationalization of emergency planning that is so urgently required.

Thank you for your attention.

MANUFACTURING ≡ CREATES ≡ AMERICA'S STRENGTH

STATEMENT
OF

THE NATIONAL ASSOCIATION OF MANUFACTURERS
ON EMERGENCY PLANNING

BEFORE THE ENVIRONMENT AND PUBLIC WORKS'
SUBCOMMITTEE ON NUCLEAR REGULATION
UNITED STATES SENATE

MAY 7, 1987



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Statement
ofThe National Association of Manufacturers
on Emergency PlanningBefore the Environment and Public Works'
Subcommittee on Nuclear Regulation
United States Senate

May 7, 1987

Mr. Chairman and members of the Subcommittee on Nuclear Regulation, we are pleased to submit this statement on behalf of the National Association of Manufacturers. The NAM is an organization of over 13,500 corporations of every size and industrial classification located in every state. Members range in size from the very large to over 9,000 smaller manufacturing firms, each with an employee base of less than 500. The NAM is also affiliated with the National Industry Council which includes 135 state and local business associations representing 138,000 individual companies.

The following statement is submitted in response to the subcommittee's hearings on emergency planning. NAM supports the Nuclear Regulatory Commission's (NRC) proposed rule that would allow licensing of nuclear plants where state and/or local governments decline to cooperate in offsite emergency planning.

Our interest in passage of this proposed rule, stems from the fact that our membership constitutes major users of energy as well as most of the domestic producers. American industrial growth depends upon reliable, secure, and reasonably priced energy. Affordable energy is critical to the health of the nation's economic future, and nuclear power is a major contributor. In fact, nuclear power displaces 7 million barrels of oil per day

worldwide, and presently supplies 16 percent of our domestic electric needs.

In light of this, it is evident that nuclear power is indeed important to both the economy and energy security. It is, therefore, important that the NRC ensure the viability, as well as the continued safe operation of nuclear power plants.

Unfortunately, past NRC rules have hampered the operation of many nuclear facilities by allowing any locality to block the operation of a completed nuclear plant simply by refusing to cooperate in emergency planning activities. By preventing nuclear power plants from coming on-line, these rules have taken away a reliable resource which is needed if we are to achieve a secure energy future.

NAM believes the regulations should be remedied. We support the commission's proposal which would delete this provision and give the NRC the discretion to issue full-power licenses if the plant has met all other licensing requirements and the utility has demonstrated that emergency plans developed for the plant are feasible. Since these requirements have not changed in scope or content, the NRC continues to keep intact "the commission's obligation to assure public health and safety." The proposal, therefore, is neither a "blanket" start-up approval process, nor does it usurp states' rights. States and utilities will continue to be the principal architects of emergency plans and the principal entities responsible for their implementation.

The NRC also includes the concerns of those localities that choose not to cooperate by giving them the opportunity to contest the validity of the effort made by the utility to ensure the feasibility of the emergency plan. In this way, it avoids the de facto veto

syndrome and improves the approval process by implementing a checks and balances system. In fact, the mere existence of possible approval of the emergency planning by the commission with or without full cooperation of the state and local officials should serve as a means for encouraging their active involvement in development of these plans.

NAM is concerned that this form of non-participation on the part of a state or locality could force an existing, fully operating nuclear facility to shut down. Under the current situation, the lack of participation in the exercise of the emergency evacuation drill could force the commission to revoke the existing operating license. Nothing could be more detrimental to this nation's future energy security than the denial of electricity from these nuclear plants which would force utilities to return to burning foreign source fuel to meet the power demands of the public.

The proposed rulemaking reflects Congress' original intent by instituting the safest most efficient emergency plan. The new proposal simply clarifies this intent by authorizing start-up action with or without cooperation from state and local authorities, if the plant is indeed found to adhere to the appropriate emergency planning standards.

NAM applauds the subcommittee's efforts to improve this nation's emergency planning protection system. We, therefore, support the current proposal that would clarify the NRC's existing authority to grant an operating license despite state and local government nonparticipation in emergency planning.

Thank you for consideration of our views.

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UNITED STATES OF AMERICA

Senate Committee on Environment And Public Works
Subcommittee on Nuclear Regulation

Testimony of

Ellyn R. Weiss
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May 4, 1987

Thank you for the invitation to appear before you today. I am General Counsel to the Union of Concerned Scientists, a non-profit public interest organization concerned primarily with issues of energy policy, nuclear safety and arms control. UCS's work is funded by the contributions of some 100,000 sponsors around the country. My law firm, Harmon & Weiss has represented the New England Coalition on Nuclear Pollution, an Intervenor in the Seabrook construction permit and operating license proceedings since 1972. I have been involved in nuclear safety and licensing cases since 1973. In fact, the Seabrook construction permit case was my first introduction to this unique process. As an Assistant Attorney for the Commonwealth of Massachusetts from 1973-1977, I represented the state in the original Seabrook case, which gives me an historical perspective

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on the NRC's current proposal to gut emergency preparedness. Attached to my testimony are more detailed comments and attachments.

It has certainly escaped no-one's notice that this hearing takes place a week after the anniversary of the accident at Chernobyl. It is a sorry statement of the degree to which the U.S. is out of step with the rest of the free world that we observe this anniversary not by pointing to steps we might have taken to improve the protection of the American public but by fighting desperately to keep the NRC from weakening the standards which govern U.S. plants. While virtually every Western country designs their nuclear plants to stricter standards than those in the U.S. - and many of them adopted stricter rules after Chernobyl - the NRC has not only frozen safety advances through adoption of its ill-conceived backfit rule, it is now proposing to roll back emergency preparedness in an effort to license two nuclear plants in sites that no responsible agency would ever have allowed.

Make no mistake: the proposed rule constitutes a clear retreat from current safety standards. In its January draft, the NRC admitted this - indeed, termed it "obvious" that current rules "provide the most nearly complete assurance that offsite emergency plans will not only be adequate but can be implemented" Draft Proposed Rule, 10 C.F.R. 50, reprinted in Enclosure A, Memo to NRC Commissioners from William C. Paller, & Victor Stello, Jr.; re: Consideration of Emergency Planning Rule Changes to Deal with Lack of Governmental Cooperation in Offsite Emergency Planning, Jan. 13, 1987, p. 4. While this language has disappeared from the current proposed rule, it is still true.

What does the rule do? It effectively eliminates the requirement of actual preparedness to cope with an accident. A nuclear plant could operate over a state's conscientious

determination that its citizens can not be protected, upon delivery to the state of a utility-drafted plan including so-called "achievable" compensatory measures. The current proposal has been so watered down as to make it manifest that 't is written to allow approval of virtually any plan a utility might offer. There will be no exercise, no need to show that the persons (state and local officials, by necessity) designated to carry out the plan have been trained to do so. This is, in short, a retreat to the pre-TMI situation of ad hoc response.

NRC's stated rationale for the rule is based on fundamental misrepresentations of fact and a basic misapprehension of what the agency's function is. The agency claims that when it promulgated the emergency planning rule in 1980, it did not anticipate that a state government might refuse to submit plans that it considered incapable of protecting its citizens. Let me observe first that none of the current commissioners were personally involved in the deliberations over the 1980 rule and, with the exception of Commissioner Asselstine, were not involved in any visible way at all in commercial nuclear power issues in 1980, insofar as I am aware. However, even a cursory review of the public record will show the claim that the Shoreham and Seabrook situations were not anticipated to be false. In fact, three of the five Commissioners then sitting have publicly stated that this precise eventuality was considered, but that the need for preparedness was considered overriding. The comments of Commissioner Bradford and Commissioner Ahearne are attached. Commissioner Gilensky testified to the same effect before the Subcommittee on Energy and Environment of the House Committee on Interior and Insular Affairs on April 28, 1987.

The fact is that not only did the Commissioners recognize the role of the States, but that the probability that operation of plants might be stopped by state action was a primary ground upon which many industry commentators objected to the current rule.

In promulgating the rule, the Commissioners explicitly stated:

The Commission recognizes there is a possibility that the operation of some reactors may be affected by this rule through inaction of State and local governments ... The Commission believes that the potential restriction of plant operation by State and local officials is not significantly different in kind or effect from the means already available under existing law to prohibit reactor operation, such as zoning and land-use laws, certification of public convenience and necessity, State financial and rate considerations (10 C.F.R. 50.33 (f)) and Federal environmental laws. 45 Fed. Reg. 55404 (Aug. 10, 1980).

The NRC thus fully understood and debated the potential effect State and local governments could exercise over plant licensing, but determined that the safety importance of the rule overrode such objections, stating: "adequate emergency preparedness is an essential aspect in the protection of the public health and safety". Id.

Perhaps the most perverse distortion of historical fact is contained in NRC's second major stated rationale for the rule: the claim that it is needed to provide "equity and fairness" to utilities. The AEC and its successor, NRC, at the consistent urging of the utilities, denied requests by citizens and states to decide before plant construction whether it is feasible to take effective action to protect surrounding populations from the consequences of severe accidents. Before the TMI accident, the agency refused to consider the issue, arguing that, since such and accident was "incredible", there was no threat to people. In the Seabrook case, specifically, both the states of New Hampshire and Massachusetts and local citizens tried to raise the unsuitability of the site before the plant was built and were turned away by the NRC. After TMI, when Seabrook was still in the initial stages of construction, the agency again rejected petitions to look at the feasibility of evacuation before \$5 billion was sunk into the ground. NRC promised that it would

fully review the issue, but only after the plant was built. It also promised the parties, and the United States Court of Appeals, that at that stage it would not consider in any fashion the utility's financial investment; if the emergency planning rules could not be met, the plant would not be licensed, regardless of how much money had been spent. See Seacoast Anti-Pollution League v. NRC, 690 f. 2d 1025, 1030 (D.C. Cir. 1982). NRC claimed that the utilities proceeded "at their own risk" in building Seabrook. Now that the time has come to make good on that promise, the NRC proposes to break faith with the people. What are we to conclude, but that it was all a cynical fiction intended to create a fait accompli that could not be undone?

During March 19, 1987 hearings in the House Committee on Appropriations, Subcommittee on Energy and Water Development, Congressman Mrazek asked the NRC whether it agreed with the statement in the rationale for the proposed rule that "significant policy questions of equity and fairness are presented where a utility has substantially completed construction and committed substantial resources to a nuclear plant and then ... a State or local government opposes the plant."

Commissioners Zech's remarkable answer, provided in writing to Congressman Mrazek on April 1, 1987 was as follows:

In a hypothetical situation in which a utility first spends the sums necessary to build a nuclear plant, based on the representations of State and local authorities that they actively want the plant to be built, and then is informed by those same authorities that they do not want the completed plant to operate, an issue of fairness and equity has been raised. Under the proposed rule, the statutory standard of reasonable assurance that public health and safety will be adequately protected would be unchanged.

As we have shown, this so-called "hypothetical situation" certainly does not apply to Seabrook, a case with which I am

intimately familiar. Yet the proposed rule would apply to Seabrook, indeed is designed for Seabrook - despite the repeated unsuccessful attempts by those affected to have NRC consider this issue before the money was spent.

What Chairman Zech has now retreated to calling a "hypothetical situation" is in fact presented in the official rationale of the proposed rule as if it accurately described the real case. Since it does not, where is the rational basis for this rule, and, in particular, where is the basis for applying it to cases which do not conform with this "hypothetical situation?"

The prospect that a several billion dollar nuclear plant might never operate is a troubling one, even though the utilities, with NRC's cooperation, dug these holes for themselves. But this question must be separated from the basic safety issue. If the plants cannot meet emergency preparedness standards and their operation poses undue risk - which I believe it clearly does - they should not operate. If safety can be sacrificed to recoup the utility's investment then the basic premise of the Atomic Energy Act and of the two-stage licensing system has been abandoned. Once that step is taken in the area of emergency preparedness, no safety standard is sacrosanct. The issue of what to do next, and who shall bear or share the cost, is a separate issue to be determined by state PUC's or perhaps considered by Congress. The fact that it has not yet been resolved for Shoreham and Seabrook does not justify authorizing operation of these plants.

In my opinion, this current dispute is not fundamentally an argument over who shall make the decision whether a plant will operate. It is really a dispute over whether the public safety will be sacrificed in the short-term interest of protecting utilities investments. I say this because it is manifest to anyone with simple common sense that the Seabrook and Shoreham

sites are unsuitable for nuclear power plants. In the case of Seabrook, upwards of 100,000 totally unprotected beachgoers, on a typical barrier beach with one major north-south road, are in the direct pathway of any release from the plant. They would be trapped, as anyone who has ever attempted to drive through the area on a normal day can testify.

The Commonwealth of Massachusetts, after much study and expert input, concluded that a catastrophe could not be averted should Seabrook have a serious accident. This conclusion is correct. NRC calls Massachusetts "noncooperative." What NRC means is that Massachusetts will not cooperate in NRC's efforts to license Seabrook despite the fact that effective emergency protection is impossible. Massachusetts has nothing to apologize for; it is the NRC that has forsaken its public duty. It is imperative that Congress not allow this proposal to take effect.

In conclusion, let me return to Chernobyl, which is often presented as being the worst case. It was not. The total population evacuated from the 19 mile area surrounding Chernobyl was some 135,00 - the great majority of which have not been allowed to return. There are close to 135,000 persons just in the beach areas within a few miles of Seabrook on a summer weekend. At 19 miles, a substantial portion of metropolitan Boston is included.

Moreover, it is dangerous folly to imagine that an accident with radiation releases of the magnitude of Chernobyl could not happen here. While it would not happen in the same way, each plant contains an enormous inventory of radioactive material (only 6-7% of the Chernobyl inventory was released) and for each U.S. design there are many mechanisms by which it could be released. No U.S. containment is designed to withstand a full core melt and, for example, NRC's most recent research finds a 10-90% chance of containment failure in the event of a serious

accident at one of the 24 GE Mark I boiling water reactors operating in the U.S.

Even the NRC's Advisory Committee on Reactor Safeguards has advised NRC to be more forthright about the chances of accidents:

With 120 nuclear power plants soon to be in operation, one can anticipate a continued occurrence of abnormal events. Some of these may cause potential adverse health effects or even deaths among the plant labor force or even among neighboring populations. Any such event will undoubtedly cause considerable alarm among members of the public (although perhaps not as much as occurred at TMI), and the NRC credibility will suffer badly unless positive steps have been taken to inform the public that such events can occur. This loss of credibility could frustrate the objectives of the Atomic Energy Act. David A. Ward, Chairman, Advisory Committee on Reactor Safeguards, to Lando W. Zech, RE: ACRS Suggestions for an NRC Long Range Plan, Oct. 15, 1986, P. 8.

But NRC surely needs to do more than "inform" the public that serious accidents can happen here. It needs to take steps to insure that when these accidents occur the consequences to human life and welfare are not catastrophic. Instead, to gut already minimal emergency preparedness rules for the expedient of licensing two plants at two unsuitable sites is unconscionable.

None of the justifications provided by the NRC for this rule change withstand scrutiny. What is the attitude motivating this proposal? Let me quote from the comments filed with the Commission on May 4, 1984 by John Ahearne, Chairman of the NRC when the current rule was promulgated:

I really fear that what this proposed rule implies, and will certainly lead to an inference, is that nine years after Three Mile Island and in spite of Chernobyl, the U.S. Nuclear Regulatory Commission has concluded that a major power plant accident can not happen.

The U.S. nuclear power industry has been plagued by incompetent management, poor operating practices,

terrible maintenance, shoddy construction--results of the general nuclear community's belief that accidents could not happen. This belief was shared amongst the NRC and its predecessor agency, the nuclear industry, and the Congress. Three Mile Island shattered that attitude. At the time some of us were concerned that this effect was a saw tooth and not a permanent change. Sadly, the Commission's proposed rule suggests that the pre-TMI complacency is returning.

The NRC's states that it will act in the interest of "fairness and equity" to utilities. That leaves it to Congress to see that equity and fairness are done for the public. We urge you to pass the legislation necessary to prevent the NRC from sacrificing public safety in the name of short-term financial interests.

Respectfully submitted,

A handwritten signature in cursive script, reading "Ellyn R. Weiss".

Ellyn R. Weiss
General Counsel